



JFQ

Issue 70, 3rd Quarter 2013

ON THE EDGES OF **WAR**

Beyond Sequester
Awaiting Cyber 9/11

JOINT FORCE QUARTERLY

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Inside

Issue 70, 3rd Quarter 2013



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JFQ Dialogue

- 2 From the Chairman
- 4 Have You Renewed Your Commitment Yet? *By Bryan B. Battaglia*

Forum

- 6 Executive Summary
- 8 A Western Insurgency in Afghanistan *By Robert Egnell*
- 15 Forward-deployed Medical Assets and the COIN Offensive
By David S. Kauvar and Tucker A. Drury
- 21 The Way Ahead for Human Terrain Teams *By Christopher J. Lamb,
James Douglas Orton, Michael C. Davies, and Theodore T. Pikulsky*
- 30 Environmental Planning While Deployed: Mission Hindrance
or Enhancement? *By LeeAnn Racz, Peter A. Baker, Kelsey L. Duckworth,
Tiffany R. Heline, and Brian D. Woodall*
- 34 Air Advising: A Critical Component of Joint Engagement
By Nicole S. Finch and Peter A. Garretson

Commentary

- 40 Tora Bora Reconsidered: Lessons from 125 Years of Strategic Manhunts
By Benjamin Runkle
- 47 Beyond Sequester: Improving National Defense in an Age of Austerity
By Richard H. Kohn
- 55 Insights from the Women in Combat Symposium *By Ellen L. Haring*
- 59 Enhancing the U.S. Rebalance Toward Asia: Elevating Allies
By James M. Keagle, Richard D. Fisher, Jr., and Brian Johnson
- 66 Thucydides, Benghazi, and Honor *By Alan Greeley Misenheimer*



JFQ

Features

- 70** Unpacking Cyberwar: The Sufficiency of the Law of Armed Conflict in the Cyber Domain *By Kyle Genaro Phillips*
- 76** Awaiting Cyber 9/11 *By Clifford S. Magee*
- 83** On Military Creativity *By Milan Vego*
- 91** The New Operational Paradigm: Operation Odyssey Dawn and the Maritime Operations Center *By James G. Foggo III and Michael Beer*
- 94** Energy Diversity and Development in Kenya *By Albert Kiprop Kendagor and Richard J. Prevost*

Recall

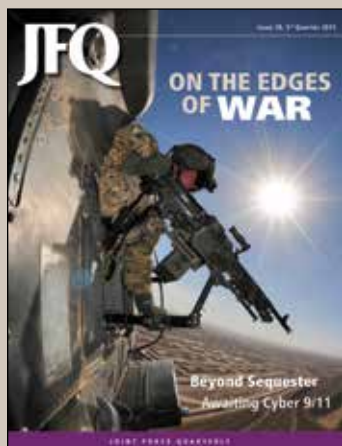
- 100** Second Fronts: Factors in Success and Failure and Implications for the Future *By Phillip S. Meilinger*

Book Reviews

- 108** Bleeding Talent *Reviewed by Lindsay L. Rodman*
- 109** Bleeding Talent *Reviewed by Gregory E. Schwab*
- 110** Competitive Strategies for the 21st Century *Reviewed by F.G. Hoffman*
- 111** Allied Master Strategists *Reviewed by Francis P. Sempa*

Joint Doctrine

- 113** From National to Theater: Developing Strategy *By Derek S. Reveron and James L. Cook*



ABOUT THE COVERS

Front cover: Soldier provides security from Black Hawk during mission over Kandahar Province, Afghanistan (U.S. Army/Brendan Mackie). Table of contents shows (left to right) Soldier observes security during ceremony to open new soccer field in Kandahar City (U.S. Army/Breanne Pye); Seaman monitors surface contacts aboard USS *Kearsarge*, deployed in support of maritime security operations (U.S. Navy/Corbin J. Shea); MV-22B Osprey lands during operations at sea (U.S. Marine Corps/Kyle N. Runnels); and F-35 Lightning II, assigned to 442nd Test and Evaluation Squadron, moves into position at Nellis Air Force Base, Nevada (U.S. Air Force/Lawrence Crespo).

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Chairman meets Marines stationed at U.S. Embassy, London

From the Chairman

Why We Serve

There are as many reasons to serve the Nation as there are Servicemembers. Some join for honor, some for a challenge, and some for more concrete reasons. I once knew a Soldier who signed up on a dare.

Regardless of why we join, most Soldiers, Sailors, Marines, Airmen, and Coastguardsmen continue to serve because of the camaraderie we forge with our brothers and sisters in arms. These bonds of trust extend from those in uniform to the loved ones who support us, and they connect today's force with those who have already served and with those who will. This trust makes us who we are—it makes us a military family.

Like any family, we understand the importance of making tough decisions to balance competing challenges. General George Marshall famously stated, "Don't fight the problem, decide it." He knew that simply railing against our challenges was choosing not to choose.

Our family has some tough choices ahead as we deal with rising risks and declining dollars. I cannot predict all the choices or their consequences. But I can share with you how I will approach them. In every case, I will be guided by my commitment to ensure that we have the best trained and best equipped military on the planet *and* that we keep our nation immune from coercion. To

me, this means making choices that uphold the reasons why we serve.

An Uncommon Life

Our choices must preserve the unique ethos of our profession of arms. Deployed in Afghanistan, Army Staff Sergeant Rachel Baranek put it this way: "I believe that being part of a bigger organization than myself and representing something bigger than myself is my way of earning my freedom and my way of life, and that of my family."

Generations before Rachel have answered a similar call to live an uncommon life—a call embodied by the inscription at the base of "Old Simon" in Antietam National Cemetery: "Not for themselves, but for their country." This spirit must continue to be our guide.

Our officers and enlisted personnel have to remain more than simply competent practitioners of the art of war. They must continue to be men and women of character, worthy of standing alongside past generations and leading this generation into the future.

The Mission

Our choices must ensure we are always ready and always the best. Generations past and present have been driven by a desire to make a difference in the world. Navy Petty Officer 2nd Class Victor Vazquez enlisted at the age of 34 and celebrated his 35th birthday at boot camp. He remarked, “I wanted the opportunity to give back what I have learned as a civilian.” When asked why he serves, his answer was simple: “the mission.”

Petty Officer Vazquez’s story is unusual, but his motivations are familiar. People join the military because they want to defend our nation and its interests. At a more personal level, they want to do meaningful work that produces results and to be a part of the most potent military force the world has ever known.

We honor this drive by remaining committed to the effectiveness of our peerless Joint Force, both today and tomorrow. That starts with our people. We will ensure those in harm’s way have the training and resources required to achieve the mission in Afghanistan and around the world.

As they return home, we must give them the autonomy to excel and make sure that their work continues to have meaning. And we must work not only to keep them ready with reduced resources, but also to guarantee that we remain the best trained and equipped force in the world.

Our Families

Our choices must contribute to the well-being of our families. Army Specialist Patrick Serna explained, “I knew that if I could join, I could pay bills, go to college, and I’ll be able to support [my son] in the long run.” Pay, benefits, retirement—these are powerful motivators for many who choose to serve. In the end, the well-being of our Servicemembers and their families is the foundation of strength for our whole military family.

To keep this foundation solid, we must preserve our ability to care for military families in the past, present, and future. Our compensation system strives to reflect the unique sacrifices our families make—the birthdays missed, friends left behind, and loved ones lost.

But just as Patrick worries about caring for his family in the long run, we have to

worry about providing for the military family in the decades to come. That means meeting our commitments, but resetting expectations developed over a dozen years of expanding budgets. It means working together to set up a system where pay remains competitive, health care becomes sustainable, and retirement stays solvent.

Bonds of Trust

Our choices must safeguard the bonds of trust we have with one another and the Nation. As Army 1st Lieutenant Ian O’Neill put it, “They do it for each other and I don’t think there’s any other organization where there’s that much selflessness and brotherhood.”

We cannot afford to mortgage this trust or our people for ever-expanding capabilities

or unsustainable compensation. We cannot compromise tomorrow for today. We have an obligation to the Nation to be ready for an uncertain and dangerous future. Along the way, our character and competence must remain unblemished.

In the end, we cannot fight the hard choices that will keep our force in balance. We must decide them. **JFQ**

MARTIN E. DEMPSEY

General, U.S. Army
Chairman of the Joint Chiefs of Staff



U.S. Army (Arma Rutherford)

Army 1st Lt. Ian O’Neill, security force platoon leader for Provincial Reconstruction Team Paktika

Have you **Renewed** your **Commitment** yet?

By BRYAN B. BATTAGLIA

The Chairman's letter to the joint force has been published for some time now, and in that letter he addresses four priorities. Since these are his priorities, they are also our priorities. At this point, we should be familiar with them, but just in case, we are to "Achieve Our National Objectives in Current Conflict, Develop Joint Force 2020, Renew Our Commitment to the Profession of Arms, and Keep Faith with Our Military Family."

As I circulate around the force, I enjoy talking about all four of these priorities. But for the purpose of this article, I want to expound on one of them: renewing our commitment to the profession of arms. To begin, I do not want you to think that because renewing our commitment is listed third, it is of lesser importance. In fact, that could not be farther from the truth. The way I see it, the last three priorities blend to achieve the first. In *Joint Force Quarterly* 64 (1st Quarter 2012), I mention a favorite "how to renew" method: reaffirming our oath of enlistment or office, an oath that has literally been around since the late 1700s. It is a powerful paragraph of soldierly verbiage and expresses the lifelong investment to a purpose that is greater than ourselves. "Service in our Armed Forces is more than a job; it is our profession. A job is something assigned within the profession. And jobs come and go, but the commitment and passion to the profession in which we serve lasts forever." There comes a time when we honorably discharge or retire. Though no longer in

uniform, the membership and passion within the profession remains unbroken.

I was recently asked by a Soldier in Afghanistan, "SEAC, I get the re-swearing of my oath piece to renew my commitment. But is there anything else I can do? What sort of questions am I asking myself as I renew my obligation and commitment? I've never done this before and I want to do it right." These very questions may be on the minds of many others, too.

Allow me to offer some suggestions, along with a personal experience to help in your renewal. It worked for me and I am confident it can work for you. We are all

different and our purposes for joining the military vary. But regardless of whether you have been serving four months or four decades, it is never too early or too late to renew your commitment.

In our line of work, accompanied with risk and danger, there are two fundamental questions that I recommend you ask yourself: Why do I serve? Why is it worth the sacrifice? Now to help you answer those questions, let me offer a recent personal experience. It may cost you a few out-of-pocket pennies to get there, but again, I believe it will be money well spent and enable you to find additional answers to help with your reflection.



U.S. Army (A.M. LaVey)

Soldiers, Sailors, Marines, and Airmen prepare for mass joint reenlistment ceremony, Al Asad Air Base, Iraq

Sergeant Major Bryan B. Battaglia, USMC, is the Senior Enlisted Advisor to the Chairman of the Joint Chiefs of Staff and the Senior Noncommissioned Officer in the U.S. Armed Forces.



Airman carries flag during 10th anniversary of 2-mile remembrance march at Sather Air Base, Iraq, to honor victims of 9/11

In February, I found myself in New York City. It was my first visit to this powerful metropolis. I had seen Ground Zero only on television and in pictures. Where the Twin Towers once stood, only holes in the ground remain. Ground Zero has since been converted into an almost surreal memorial surrounded with nameplates of those who lost their lives on 9/11. You cannot help but get caught up in the moment, and for us who wear the cloth of this nation, that moment is quite long. (Suggesting New York City as a place to reflect and renew your service commitment brings no intent to slight the other two terrorist-struck sites, the Pentagon and Shanksville, Pennsylvania.) New York City was where 9/11 started. Think about it: hundreds of thousands throughout the city woke up that morning having no idea what was in store—other than just another day at the office, and carrying on with life in a free democratic society for which our country was founded. Only hours later, thousands of men, women, and children—our

countrymen we are sworn to support and defend—perished.

After the events of September 11, there was never any question from our foxholes as to why the following month we as a robust fighting force deployed overseas, taking the fight to our enemy. That is what our President directed, and we as American fighting men and women were going to exhaust every effort to defend our nation by eliminating the threat so this would never happen again. Many if not all of you were raising your hand, saying, "Put me in, Coach!" From that time on, you have been putting it all on the line, and that in itself lives up to the oath, obligation, and commitment to which you all raise your hand.

We hold our fallen with great respect and honor. When we bury one of our comrades, we vow ourselves to them, their family, and each other that we will never forget. I intently listened to one of our guides talk about that morning, and how her husband, firefighter Jeffrey Olsen, whose fire station

was literally a stone's throw away, responded to the World Trade Center alarm. As she finished speaking of how her husband was such a proud and committed firefighter, she directed our attention to a memorial nameplate that contained the inscription "Firefighter Jeffrey Olsen, Engine #10." It made me reflect that, along with our military fallen, there are other groups of brave men and women who we also promise never to forget. They, too, have sacrificed much. Escorted throughout the sites and hearing their stories reminded me of the questions that I ask here. Though it comes with great sacrifice, *this is why we continue to serve.*

Visiting such a location can help you find your own answers and reaffirm your commitment. While in spirit only, our fallen comrades have left an indelible legacy at Ground Zero, heavily felt throughout those hallowed grounds.

How have you renewed your commitment to the profession of arms? I am interested in hearing your feedback. **JFQ**

Executive Summary

One of the enduring images from World War II is a 1939 public awareness campaign poster developed by the British Ministry of Information in anticipation of inevitable German bombing raids. It boldly stated, “Keep Calm and Carry On.” More than two million of these posters were printed and made ready for use, but they were never publicly distributed. Why? After the Ministry of Information showed the poster to a number of test groups, it learned something quite interesting: the British public did not think that they needed reminding of their need to be resilient. Even after the German raids came some 10 months after the posters were made, they were still not used. In 2000, a shopkeeper found one in a box, and eventually a company placed them in the public consciousness worldwide. Today, they seem to be everywhere, even in parody on various Web sites. But the message has some weight in these seemingly difficult times.

As we all know, life is a gift that we frequently take for granted. When tragedy strikes, we are always caught off guard and left to wonder why. As this edition goes to press, we are learning of the loss of life and property in Moore, Oklahoma, from a devastating tornado. Having begun my career as a member of the Air Force’s Airborne Warning and Control System aircraft crew force based nearby at Tinker Air Force Base, my family and I have lasting memories of the power of tornadoes and their accompanying thunderstorms. As devastating as the losses were, it seems at this early time many were as prepared as they could have been and the responses to the disaster were well organized and effective.

At the National Defense University, we are just beginning to accept the loss of a pair of leaders, mentors, friends, and truly great people, Major General Joe and Sue Brown. Their stars shone brightly here at NDU as they led the Eisenhower School team. In a manner that Joe and Sue would have expected, the faculty, staff, and students at the Eisenhower School and all of the NDU community paused and then continued the mission toward graduation this spring. We

learn how close we really are and what we mean to each other in such times. We do indeed keep calm and carry on.

This edition’s Forum offers five valuable perspectives from the experiences of the last decade-plus of combat and supporting operations. In an article that should enliven the ongoing debate on insurgencies and how militaries deal with them, Robert Egnell provides another important view of the last 12 years of coalition efforts in Afghanistan with a different critique of counterinsurgency operations and their implications for future conflicts and military force structure. As combat-experienced doctors who have seen the results of these conflicts on both our own troops and local populations, David Kauvar and Tucker Drury next offer their views on how best to position and take advantage of medical units in counterinsurgency operations. Human Terrain Teams deployed to combat zones in Iraq and Afghanistan have been both praised and assailed for a range of reasons in the media. But the question remains as how best to fill the gap between the military instrument’s limitations and the local social problems it faces in a conflict area. A team of research fellows from the Institute for National Strategic Studies here at NDU, led by Christopher Lamb, provides us a summary of his team’s detailed study of this program. Another significant issue facing deployed forces and the host nation is how well the joint force concerns itself with the environmental impacts of operations. LeeAnn Racz and her graduate students from the Air Force Institute of Technology describe the important considerations for both military planners and deployed commanders on how to include being good stewards of the area they operate in. Finally, Nicole Finch and Peter Garretson describe a growing (and actually traditional) means of helping nations build air arms in their security forces through the use of air advisors.

This issue’s Commentary continues several discussions that have been ongoing in *JFQ*, and in the wider media, to include how the United States and other nations hunt for their enemies, the effects of reduced national budgets on defense, the role of

women in combat, the rebalancing of U.S. military forces to the Pacific, and how the diplomatic corps views the aftermath of the first loss of an Ambassador in several decades. Benjamin Runkle first takes us through more than a century of efforts to find, fix, and target those individuals who seek to affect the strategic level of international relations through the lens of the battle of Tora Bora. Internationally recognized historian Richard Kohn discusses the “so what?” and “now what?” questions as we look to where the military will be after the sequester ends. Ellen Haring reports on an important symposium held at the height of the recent debate on removing the remaining combat exclusions in the Services barring women from specific combat specialties. Adding to Admiral Samuel Locklear’s comments on his area of operations in U.S. Pacific Command (see *JFQ* 69), James Keagle, Richard Fisher, and Brian Johnson wrestle with the twin problems of a lack of a North Atlantic Treaty Organization-style alliance in the region and the desire to manage China’s behavior. A career diplomat with service as a teaching faculty member at National Defense University, Alan Greeley Misenheimer offers important thoughts from a Foreign Service Officer’s point of view on the tragic events that took the lives of four Americans in Benghazi, Libya, including Ambassador Christopher Stevens, who was a graduate of the National War College in 2010.

Cyber, military creativity, maritime operations, and energy provide a great deal to consider in our Features section. Kyle Genaro Phillips helps us understand the relationship between the Law of Armed Conflict and cyber warfare. Many have predicted a catastrophic cyber event just over the horizon. Clifford Magee strongly advocates for the Department of Defense to take responsibility for defending the Nation from this threat, to include defending *all* aspects of our computer infrastructure. *JFQ* readers and many professional military education students among them have been the benefactors of the many significant contributions of Milan Vego to this journal and beyond. Professor Vego

returns with a thoughtful article on military creativity that should be required reading as we all seek to find new ways to do more with what we have. Next, focusing on the operational level of war, Rear Admiral James Foggo III, USN, and Lieutenant Michael Beer, USN, offer an important look into how the maritime forces of the coalition operated effectively during the 2011 Libyan campaign. Adding to our frequent discussions on Africa and its strategic implications for the joint force in the future, Albert Kendagor and Richard Prevost offer an important review of the energy situation in Kenya, a key state in the U.S. Africa Command area of responsibility.

In Recall, Phillip Meilinger, another longtime contributor to *JFQ*, offers a significant case study with modern implications to consider—the problem of opening operations on two simultaneous fronts in combat. Our Book Reviews section once again brings the reader three important books and four reviews, each with an insightful look. In Joint Doctrine, Naval War College professors Derek Reveron and James Cook offer an excellent discussion of theater strategy that will be useful in joint professional military education classrooms and for those on the geographic combatant command staffs.

On May 16–17, 2013, NDU Press hosted the 7th Secretary of Defense and 32nd Chairman of the Joint Chiefs of Staff Essay Competitions here at NDU. As a first, many of our judges, unable to travel due to fiscal constraints, participated online. The event was a success, and the winners of these important contests will be formally announced in the next edition of *JFQ*. My thanks to all who entered the contests, to the judges who reviewed the dozens of entries and selected the winners, and most of all to our NDU Press team led by Joey Seich who most impressively organized and executed a world-class event on a shoestring budget and computer. Even in these difficult times, we carry on to bring you the best ideas from the joint force. **JFQ**

—William T. Eliason, Editor



IN MEMORIAM

The Joint Force and the National Defense University community lost a truly exceptional pair of leaders on April 19, 2013, in a tragic plane crash that took their lives: Major General Joseph Daniel Brown IV, USAF, and his wife, Sue Stanger Brown.

General Brown was born February 8, 1959, in Charlottesville, Virginia. Sue was born September 14, 1960, in Washington, DC. The couple met while Joe was a cadet at the Virginia Military Institute, and Sue was a student at the College of William and Mary. They were married June 26, 1982, at Fort Myer Post Chapel in Arlington, Virginia.

General Brown was Commandant of the Dwight D. Eisenhower School for National Security and Resource Strategy at NDU. After being commissioned in 1980 as a distinguished graduate of the ROTC program at VMI with a Bachelor of Arts degree in history, he went on to earn a Master of Science degree in business administration from Central Michigan University. General Brown was also a distinguished graduate of the National War College, class of 1997. Sue Stanger Brown was President of the Air Force Officers' Wives' Club of Washington, DC. Sue graduated with honors from the College of William and Mary in 1982 with a Bachelor's degree in business administration. She also earned a Master of Science degree in administration from Central Michigan University.

Beyond leadership and academic accolades, both were accomplished in a variety of ways. General Brown was a 32-year Air Force veteran and decorated aviator. A command pilot with more than 4,300 hours primarily in bombers, he flew sorties over Iraq and Afghanistan for which he was decorated with the Distinguished Flying Cross with "V" device. His other medals and decorations include the Legion of Merit, Bronze Star Medal, and Air Medal. Sue was a gifted musician and the principal cellist for the William and Mary Symphony Orchestra, and she played in various symphonies and string quartets, including the Fairfax Symphony, throughout her life.

Together, Joe and Sue led and cared for all under his command at the 28th Bomb Squadron at Dyess Air Force Base and the 28th Bomb Wing at Ellsworth Air Force Base, and continued to do so for the students, staff, and faculty at the Industrial College of the Armed Forces, which was renamed the Eisenhower School during their tour.

In all, the Browns touched thousands of lives during their 18 military assignments. Survivors include their son, Daniel Craig Brown, and daughter, Emily Allison Brown.

The NDU Foundation has organized a memorial fund in their honor.



A WESTERN INSURGENCY IN Afghanistan

By ROBERT EGNELL

Dr. Robert Egnell is a Visiting Professor and Director of Teaching in the Security Studies Program at Georgetown University. His most recent book is *Counterinsurgency in Crisis: Britain and the Challenges of Modern War* (Columbia University Press, forthcoming), coauthored with David H. Ucko.

The wars in Afghanistan, Iraq, and Libya have each had many names, reflecting the political and strategic ambitions of coalition forces, the antagonism of those unsupportive of these wars, and the latest conceptual trends within the military profession as well as in academia. For a number of years, counterinsurgency was the dominant conceptual trend, and operational plans were adjusted to reflect the contested lessons gleaned from America's experience in the Vietnam War as well as Britain's and France's imperial experiences in Malaya, Algeria, Kenya, and elsewhere. While there were clear benefits of the counterinsurgency narrative as a tool for reform of armed forces too narrowly focused on conventional warfare, the theories of colonial policing have also evinced clear limits in their applicability to the contemporary context.

This article engages the heated counterinsurgency debate by arguing that not only were previous counterinsurgency lessons misunderstood, misapplied, and under-resourced in Afghanistan, but also that, more fundamentally, the counterinsurgency narrative failed to provide an accurate analysis of the nature of the problem in Afghanistan, or a link between the tactical level of operations and the coalition's frequently changing political aims. In short, the Western application of counterinsurgency approaches in Afghanistan never "got it right," and an alternative interpretation of and approach to the conflict would therefore have been necessary to achieve success.

With the withdrawal date from Afghanistan drawing closer, one can reasonably question the merits of reconsidering the coalition's strategy for the country. Afghanistan increasingly looks like a lost cause, and the main lesson from it is seemingly set in stone: avoid large-scale social engineering projects on the other side of the globe unless one has almost infinite will, resources, and time. However, limiting ourselves to that conclusion would be a serious mistake. The lessons emerging from the insurgency/counterinsurgency nexus in Afghanistan and Iraq will likely prove important in an environment of continued global urbanization, with operations that will most likely be conducted "amongst the people."¹ This environment will also be characterized by the continued attractiveness of asymmetric tactics to militarily inferior adversaries, continued Western political ambitions to democratize and liberalize the Global South, the securitization of "state failure," and operations with the objective of building government capacity. Nonetheless, in exploring *alternative ways*—defined as being less costly in lives, money, and political capital—of dealing with state failure, regional instability, and international terrorism, the conceptual toolbox from the British and French colonial histories should be replaced or at least amended by reference to the writings of revolutionaries and guerrilla leaders such as Mao Zedong and Che Guevara.

This article turns the international coalition's approach in Afghanistan on its head by advocating an insurgency approach to operations; that is, a strategy for fostering revolutionary political change by a steadily growing local movement, supported by Western political and military advisors and materiel. Surely the reader will also recognize weaknesses in the insurgency approach, but the purpose of this article, beyond illustrating the flaws in the counterinsurgency approach to operations in Afghanistan and the need to draw the appropriate lessons for future campaigns, is to demonstrate the strategically and intellectually formative nature of concepts, and the utility of using or at least contemplating completely different perspectives. To achieve that, this article challenges the application of counterinsurgency approaches in the contemporary context of Afghanistan and demonstrates how the idea of a Western insurgency in Afghanistan and elsewhere can improve the way we interpret conflicts and conduct operations.

The Campaign in Afghanistan as Counterinsurgency

Part of the problem with the coalition's campaign in Afghanistan was the lack of certainty and consensus regarding the aims of the international community as a whole, which has over time led to three separate yet increasingly related operations with different missions occurring simultaneously:

in addition to never quite being defined in a coordinated way, the international community's aims changed over time

the American-led counterterrorist effort to hunt down al Qaeda and its fellow travelers, then the North Atlantic Treaty Organization (NATO)-led International Security Assistance Force operation with a mandate to provide security and enable the third mission, and finally the third mission itself, which is the United Nations-led effort to pursue political and economic development. In addition to never quite being defined in a coordinated way, the international community's aims changed over time. What was initially a spontaneous reaction aimed at the perpetrators of the 9/11 attacks morphed, in the relatively calm years following the fall of the Taliban regime, into a state-building effort both to prevent al Qaeda's return and to create a democratic Afghanistan.

NATO Allies disagreed over whether counterterrorism or state-building ought to be the driving motivation for the overall mission, and these tensions only grew as the security situation deteriorated from 2004 onward and the Taliban regained its strength. As the frequency of attacks on government and international targets increased, the language of development and state-building shifted in favor of counterinsurgency, culminating in a formal change in strategy announced by President Barack Obama in 2009. At that time, with 8 years on the war clock, the counterinsurgency campaign only had so much time to succeed, so by 2011 the focus again shifted to "transition" and withdrawal as NATO troop contributors sought a way out. To enable some degree of success in this more than 11-year endeavor, the ambitious language of state-building and even of counterinsurgency gave way to the more limited aspirations of counterterrorism—completing a full circle regarding international intervention in Afghanistan.²

In Iraq, the switch to population-centric approaches, together with the troop surge and the Anbar Awakening, was instrumental in turning an ever-worsening civil war into a more manageable situation.³ In Afghanistan, however, the switch to counterinsurgency has not proven as useful. Whatever the metric, assessments of post-2014 Afghanistan conducted in 2013 are generally bleak.⁴ Not only

have the democratic ideals that once justified the operation been more or less abandoned, but there are also signs that the Western military withdrawal will lead to an escalated civil war in the country, compromising NATO's achievements, however defined.⁵ As a consequence, the idea of counterinsurgency in the contemporary context is increasingly criticized within the U.S. context and may already be a nonstarter.

Regardless, the branding of the campaign in Afghanistan as counterinsurgency meant that a number of assumptions were made regarding the nature of the enemy, Afghan society, "the problems at hand," and the appropriate resources and strategies required to deal with those issues. Since the concepts we use to define a conflict also create the intellectual framework within which we approach the problem, the following section highlights and problematizes a number of key assumptions that follow from the interpretation of the conflict in Afghanistan as counterinsurgency.

Relevance of Counterinsurgency Lessons Over Time and Space

Most seriously, major counterinsurgency operations have historically achieved few successes. While it is indeed possible to learn from these few successes and numerous failures, counterinsurgency principles of the past are accepted outright a bit too easily in the 21st century. Applying often-failed historical approaches in today's context should at least require a substantive reinterpretation and reorientation of past approaches and principles. A challenge recently stressed by numerous scholars is that past theorists, and especially contemporary interpreters of those theorists, have generally exaggerated the "hearts and minds" aspects while

downplaying the often equally and perhaps more important coercive tactical approaches of historical counterinsurgency operations.⁶ Massive use of force, executions, and forced population movement are but a few examples of past tactics that were employed even in the most revered counterinsurgency campaign of all, the British response to the Malayan Emergency from 1948 to 1960.

Beyond the selective interpretations of past campaigns, the context within which counterinsurgency operations take place has changed significantly. Invading or intervening in a foreign country to assist an insurgency-threatened ally or to impose a new regime, as in Iraq or Afghanistan, represents a different endeavor than achieving an organized and politically acceptable withdrawal from a colony (such as Malaya) and from suppressing uprisings for national liberation against the established governments (as in Kenya and Algeria). Contemporary intervention by fighting one's way in and asserting control brings a broader set of challenges including domestic commitment, theater familiarity, and the necessarily limited timelines of operations. Winning the hearts and minds of the local population in order to remove support for an insurgent group preaching change is also different from intervening to impose such change and fomenting local support for it.

A second difference in the nature of counterinsurgency today is the fact that past counterinsurgency operations took place as "internal" challenges within the realms of the empire; today, operations are typically conducted by coalitions and in support of a legally sovereign state.⁷ In the place of the leverage that comes with colonial control, we are left with weak yet entirely independent host nation governments that are either unable or unwilling to lead such campaigns or even to follow our lead.⁸ Despite these obstacles, contemporary counterinsurgency doctrine still presumes a sufficient harmony of interest between intervening and host nation governments, and the ability of intervening states to deploy a civilian presence large and capable enough to compensate for whatever weaknesses are found in-state. Actual practice provides a more sobering perspective. In Iraq, the institutions either collapsed through war or were dismantled through coalition decree, leading to the infiltration of various sectarian elements into positions of central political power and

a government whose interests at times ran counter to those of the intervening coalition. In Afghanistan, the counterinsurgency campaign confronts a deeply dysfunctional state bureaucracy and a NATO headquarters that lacks the competence and resources to run anything but the security aspects of operations. In both campaigns, difficulties with the host nation government were compounded by differences among coalition partners regarding approach, commitment, and contributions.

Although it is easy to overstate differences between the past and now, the nature of insurgency has also changed. It is easier today for movements of different persuasions and types to communicate and cooperate across borders. John Mackinlay introduces the idea of the "insurgent archipelago" to highlight horizontally ordered, informal patterns of insurgents disbursed transnationally, with no formal command structures or territorial basis, making them difficult to reach through a nationally based military campaign.⁹ The information technology revolution has also provided insurgents with entirely new and vastly more efficient means of resistance in the struggle for hearts and minds. Whereas the British authorities in Malaya managed to clamp down on newspapers and other media, today's insurgents are difficult to silence or isolate from their target audience. Indeed, the

problem must be an *insurgency*—commonly defined as "an organized movement aimed at the overthrow of a constituted government through the use of subversion and armed conflict."¹² Consequently, *counterinsurgency* is defined as "the military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency."¹³ If we take a closer look at the identity of the "enemy" and ourselves in Afghanistan, is this really an accurate description of the nature of the problem and the actors involved? I would argue that the counterinsurgency conceptualization of the conflict in Afghanistan is so off the mark that it risks creating significant confusion regarding the situation on the ground. There is not room in this article for what would necessarily be a long and complex discussion about the actual nature of the problem in Afghanistan, but a useful test would be to ask ourselves if the defeat of the insurgency would lead to the achievement of our strategic aims there. If we cannot answer affirmatively, it is definitely time to rethink both the concept and strategy.

Counterinsurgency Is Inherently

Conservative. We—the United States, the international coalition, NATO, or however we is defined—overthrew the Taliban government, we are imposing revolutionary societal changes in the image of Western

contemporary intervention by fighting one's way in and asserting control brings a broader set of challenges

expansion in the ways and means of communication has increased the returns on what the anarchists of the early 20th century called "propaganda of the deed."¹⁰ Social media and the ability to find an audience have allowed some groups to complement whatever they are lacking in capability with a powerful narrative.¹¹

Problematic Assumptions of Counterinsurgency

Beyond historical and contextual challenges, there are also a number of problematic assumptions involved in choosing to frame operations as counterinsurgency.

Is the Nature of the Problem Really an Insurgency? Defining the campaign in Afghanistan with the terminology of counterinsurgency means the core of the

liberal ideals of governance, and we are fighting the Taliban despite the constant reminder that we are only supporting the Afghan government in its counterinsurgency campaign and in its struggle for democracy, equality, and a liberal market economy preferably not based largely upon opium revenues. In fact, part of the problem is that counterinsurgency, by definition, is a conservative endeavor that seeks to preserve the existing political order. Although the quest for control may often involve a number of minor adjustments to address the popular grievances that fuel the insurgency, counterinsurgency is not about change.

In Afghanistan, the international campaign can be described as conservative only through a tremendous stretch of imagination. Such a view treats the history of the



U.S. Army (Thomas Duval)

Female Engagement Team Soldier talks with Afghan children on their way to school in Kandahar Province

conflict as starting after the overthrow of the Taliban government in 2001 and is therefore completely ahistorical. Moreover, such an interpretation fails to help us understand the current challenges of the campaign. First, it fails to acknowledge the overthrow of the Taliban regime and the far-reaching international aims of state-building. While the initial aims of the campaign were limited to countering threats of terrorism emanating from Afghanistan, the aim of overthrowing the Taliban regime arose within a broader international context that was flirting with grand social engineering projects, which meant that the intervening coalition naturally inherited the state-building campaign. Colin Powell's "Pottery Barn rule," that is, "you break it, you buy it"—albeit in relation to Iraq—highlights the dominant sentiment of the time. The subsequent state-building rhetoric of democratization, reconstruction, economic liberalization, and equality can be described as nothing short of revolutionary in the context of Afghanistan. The Western intervention cannot accurately be described

as being in any way conservative. Instead, the coalition has been an actor in support of revolutionary societal change.

The Assumption of Legitimate Counterinsurgency. The ahistorical counterinsurgency narrative in Afghanistan also fails to acknowledge the limited legitimacy of the current Afghan government. This legitimacy deficit, on the one hand, is a traditional problem due to the limited experience of central governance. At the risk of oversimplifying Afghan politics, I would simply note that there is a built-in suspicion toward centralized rule in Afghan society, which has been characterized by decentralized tribal-based rule and informal patrimonial structures for centuries. Popular suspicion of the central government in Kabul also stems from the widely held perception that it is thoroughly corrupt and incapable of delivering the bare necessities—even though these demands in Afghanistan seldom go beyond security, justice, or simply being left alone.

However, acknowledging that the Western coalition is more accurately

described as an agent of revolutionary change also forces the coalition and the Afghan government to acknowledge that there is nothing natural or inherently legitimate in their activities, aims, or existence. They have to convince the population of the benefits of the change they purport to offer, and thereby establish legitimate authority. In the liberal international state-building context, democratic and liberal ideals, as well as the superiority of a view of legitimacy based on legal and rational factors, are too often accepted outright as inherently useful. What is forgotten is Max Weber's important lesson that legitimacy and authority are based only on the subjective perception of the population and not on quasi-objective factors such as liberal democracy or rule of law. If a citizen of Marjah perceives the brutal but effective Taliban justice system as more legitimate than the corrupt and dysfunctional official justice system of the Karzai government, it is more legitimate, regardless of ideological grievances. The "inherently" desirable and beneficial nature

of democracy and liberalism is obviously not convincing enough, and the Western revolutionary coalition must work much harder to change the perceptions and political behavior of the population in order to achieve success. I will return to the most appropriate means of doing so.

The final point in the litany of assumptions involved in defining the contemporary campaign in Afghanistan as counterinsurgency is that it involves clearly taking sides. In the context of Afghanistan, the international coalition—including its civilian and military elements—is supposed to be a resource for the Afghan government in its struggle against the insurgency. It is nevertheless increasingly acknowledged that Hamid Karzai and his entourage are part of the problem rather than the solution. Moreover, in terms of Afghan popular perceptions, are we really sure that Karzai's government is categorically seen as good and that the Taliban and other fighters are viewed as bad? Of course not, and we should therefore not have been so willing to place all our bets on Karzai and his version of Afghan democracy.

In sum, defining the campaign in Afghanistan as a counterinsurgency has proven unfortunate as the concept has failed to help us understand the true nature of the problem there. Consequently, it has failed to help us determine the most appropriate methods and resources needed to deal with that problem. Therefore, let us turn the approach to the conflict upside-down and consider the idea of a Western insurgency or other narratives of conflict that have the aim of revolutionary societal transformation in Afghanistan.

A Western Insurgency in Afghanistan

The counterinsurgency narrative in Afghanistan is clearly problematic. However, all concepts that seek to capture the complex conflict in Afghanistan are likely to be imperfect, so a constructive critique requires presenting a more useful alternative. A key argument of this article is that any definitions or terms used to brand conflicts must help us understand their true nature and the best approaches to achieving some form of success. Turning the tables by considering an insurgency strategy is helpful in a number of respects.

First, an insurgency strategy provides a more accurate description of the nature of the problem in Afghanistan, as well as the



Afghan soldiers rehearse security procedures during simulated road halt as part of training with U.S. forces at Forward Operating Base Shank, Logar Province

U.S. Army (Tia Sokimson)

means needed to address it. Given that the international coalition's aim is not merely counterterrorism but also broader societal transformation, the main hurdle is not the existence of Taliban fighters, the Haqqani Network, or other groups currently categorized as insurgents; they are simply actors that cause tactical friction in the struggle to transform Afghan society. The challenge is to transform not only the political system that, in part, is an unfortunate post-invasion creation of the West, but also societal ideals at large. Rather than assuming that the West is the protector of the existing Afghan political order, as the counterinsurgency approach does, an insurgency approach would acknowledge that Afghan society is in fact far from permeated by Western notions of governance, justice, and economic management, and that the international coalition is instead the agent of change. The aims of operations in Afghanistan thereby take a much more ambitious turn, and the tactics that must be used to achieve the more ambitious aims change from defense to offense—not least along the civilian lines of operations, including governance and development.

Second, a more ambitious transformational aim coupled with offensive civilian tactics places the local population at the forefront of operations. A societal transformation on the scale that was envisaged during the state-building phase of the campaign in Afghanistan is inherently difficult to achieve

by external actors. Instead, local actors must take charge of these processes. The question then is whether the Afghans would be willing to fight for Western ideals and aims. As Mao and other revolutionary guerrilla theorists have reminded us, the most important quality in officers and soldiers is a strong belief in the cause.

In fact, Mao, George Washington, and Vladimir Lenin were all absolutely certain about the moral righteousness of their revolutionary struggles and aims, and so are we today as liberal interventionists in Afghanistan. While there are still some disgruntled socialists and moral relativists out there, general support for market-based liberal democracy is almost unchallenged within the broader Western populace. However, the key to success is to nurture this conviction among not only the local troops but also the entire population. Just as the populations in China and Imperial Russia were far from communist at the time of their revolutions, the Afghan population is far from liberal, and a key aspect of operations would be to create the support of the local population. The challenge then is to make substantial positive changes in the lives of ordinary Afghans in regions that could function as bases of support and recruitment against the existing political order—that is, both the corrupt central government and patrimonial clan system. This would involve raising not only military units (either through recruitment or indoctrination) with a strong

belief in the cause, but also a substantive civilian effort to establish new systems of governance, justice, and economic management within the havens of support, which would include the training and recruitment of local civil servants for these systems. Indeed, counterinsurgency also highlights the importance of local support and population-centric operations. The difference is that in an insurgency approach, the international community would use the people as a proxy for change rather than the government. The local population would be involved as the key actor in the process of change rather than as a third party or a prize to be won through hearts and minds activities.

Third, the insurgency perspective stresses the importance of bottom-up approaches to achieving order and security. A common problem of current attempts at state-building and societal transformation is the focus on the state and its central institutions with top-down approaches that fail to engage the broader population.¹⁴ As already noted, societal transformations of this magnitude should ideally emanate from the people, and a better approach is to engage, educate, and mobilize the masses to initiate the deep rumblings of the early stages of a popular outpouring that can lead to societal transformation.

of hope, but also a base for recruitment and military training for the struggle to transform the entire social fabric of Afghan society in the rural areas.

The insurgency approach to regime change abroad is not in any way new. Western special operations forces have long operated in support of guerrilla movements around the world. The U.S. Special Operations Command-approved definition of *unconventional warfare* is “activities conducted to enable a resistance movement or insurgency to coerce, disrupt or overthrow a government or occupying power by operating through or with an underground, auxiliary and guerrilla force in a denied area.”¹⁵ It is further described as the core mission and organizing principle for Army Special Forces. The novelty of an insurgency approach to international interventions would be the directive to act more comprehensively—that is, to provide essential civilian and ideological support for these efforts. The insurgency approach actually fits well with current activities of economic development assistance in many parts of the world. The aim of development aid, beyond the more acute goal of poverty alleviation, is to transform societies in our self-image through positive and negative sanctions—the old carrot and stick—and provide some

this from the onset when adopting the insurgency approach. In the end, however, given the fact that the insurgency approach to operations manages to tickle our intellects by asking new questions and pointing out new possibilities, it is certainly worth further inquiry and consideration.

Toward a Multiconceptual Identification of Conflicts

Proposing an insurgency approach to operations in Afghanistan serves two purposes. First, it provides an attempt at a broad outline of a more useful approach to the interventions and societal transformation projects of today. Afghanistan may already be a lost cause, and it may be too late to implement the insurgency approach there. However, in a strategic context where the problems of failed states, rogue regimes, and crimes against humanity will persist, coupled with an “Iraq syndrome” characterized by a reluctance to become engaged in large-scale military interventions and state-building projects, the insurgency approach provides a thought-provoking policy alternative not unlike the idea of “limited intervention,” but with the ambitious aims of societal transformations remaining.

Second, the insurgency approach highlights how changing the way we conceptualize a conflict can also completely change the way we view the problem at hand and the methods we choose to deal with it. Not only does the choice of concept mean working within certain legal frameworks or dusting off a particular doctrine or field manual. The concepts we use to define conflicts also change the way we approach the conflict, the way we interpret it, and the resources and means we employ to deal with it. The problem is that concepts defining wars are seldom the product of strategic analysis or an objective process of matching the analysis of a conflict with the most accurate concepts that characterize it. Instead, they are often the product of political and bureaucratic processes and interests that have more to do with “selling” than conceptual effectiveness for operational effectiveness.

Challenges arise when our constructed “reality” or definition of the conflict fails to match the conflict’s true nature—that is, when the political narratives and concepts depart from the reality in the field. As an example, the conceptualization of the interventions in Somalia and Bosnia

the insurgency approach fits well with current activities of economic development assistance in many parts of the world

A fourth strength of the insurgency approach is that it has the potential to provide a better congruence of the strategic concepts of ends, ways, interests, and means. The current strategy has failed in this regard and requires more resources than the international community has been either willing or able to commit and sustain. An insurgency approach would retain the strategy’s ambitious aim of societal transformation but would produce a much more limited footprint and type of intervention. It could be argued that this is exactly what took place during the early years of the campaign. However, the problem in Afghanistan during those years was that the light footprint was defensive rather than offensive. To spread the idea of change, the coalition should have sought to completely transform Kabul and thereby create not only a functioning beacon

degree of leverage or influence over foreign governments. Although obviously controversial, development aid can thereby be described as a semi-overt insurgency strategy employing both sticks and carrots. An insurgency approach to military activities would provide the civilian insurgency effort with a matching military operation.

The above is clearly only the first broad strokes in an outline of an insurgency approach to operations, and much work on this subject remains to be done. There are also a number of obvious caveats to the insurgency strategy. Most importantly, it is not the quick-fix solution that political leaders are looking for; it will require time and patience to achieve substantial political change. This does not really clash with current approaches, but the difference is that politicians would have to acknowledge



General John Allen, USMC, commander of ISAF and U.S. Forces-Afghanistan, and Afghan Minister of Defense sign memorandum of understanding to begin process of transferring detention facilities to Afghan government

as “peacekeeping” created complete mismatches between the way the conflicts were interpreted, resourced, and conducted and the grim reality of the ethnic wars there. The same thing happened in Afghanistan, where the counterinsurgency narrative neither provided an accurate diagnosis nor a remedy.

While advocacy of the insurgency approach has been useful in making these two points, a final cautionary note should be raised against strictly adhering to any single narrative approach. Conflicts of today and tomorrow are to a large extent moving targets of great complexity that cannot be pinned down with a single concept—unless it is so all-encompassing as to be analytically useless. Instead, in our attempt to understand and deal with future conflicts and security threats, we should draw on a wide range of concepts and literatures. As an example, the conflict in Afghanistan can usefully be understood through the lenses of insurgency or guerrilla war, but even more by the politically incorrect strategies of occupation and colonial conquest. In the end, a deep understanding of the conflict, combined with a large and flexible intellectual and practical toolbox, is necessary for effective planning and conduct of operations.

Most interventions take place because of the recognition that the problems at hand stem from the current state of governance and leadership, of societal structures, and

sometimes of the values and traditions that permeate the target state. There is neither sufficient political interest nor the military and civilian resources to intervene massively in many places around the world simultaneously. This limitation, however, has not stopped international coalitions from at least trying to influence these governments and societies through development aid, coercive diplomacy, and other means. Why not try an insurgency approach to societal change? Just like a politically motivated guerrilla, we are facing a strong and societally entrenched opponent, and we have limited means available to defeat him. Just like guerrilla fighters in the past, we are nevertheless convinced about the moral righteousness of spreading freedom and democracy, as well as of the potential for its popular dissemination. The American Revolution obviously reminds us that we have rebelled for this cause before. **JFQ**

NOTES

¹ The citation is a homage to General Sir Rupert Smith’s important work in *The Utility of Force: The Art of War in the Modern World* (London: Allen Lane, 2005).

² David H. Ucko and Robert Egnell, *Counterinsurgency in Crisis: Britain and the Challenges of Modern War* (New York: Columbia University Press, forthcoming).

³ Stephen Biddle, Jeffrey A. Friedman, and Jacob N. Shapiro, “Testing the Surge: Why Did Violence Decline in Iraq in 2007?” *International Security* 37, no. 1 (Summer 2012), 7–40.

⁴ International Committee of the Red Cross, “Afghanistan: Outlook Remains Bleak Despite Progress in Some Areas,” operational update, January 16, 2012; Dexter Filkins, “After America: Will Civil War Hit Afghanistan When the U.S. Leaves?” *The New Yorker*, July 9, 2012; Scott Bates and Ryan Evans, *NATO Strategy in Afghanistan: A New Way Forward* (Washington, DC: Center for National Policy, May 2012).

⁵ This civil war is arguably already decades old, but the fear is that it will enter a new and more violent phase following the Alliance’s withdrawal. See Ryan Evans, “The Once and Future Civil War in Afghanistan,” *AfPak Channel*, July 26, 2012, available at <http://afpak.foreignpolicy.com/posts/2012/07/26/the_once_and_future_civil_war_in_afghanistan>.

⁶ See Paul Dixon, “Hearts and Minds?” British Counter-Insurgency from Malaya to Iraq,” *Journal of Strategic Studies* 32, no. 3 (June 2009); Jonathan E. Gumz, “Reframing the Historical Problematic of Insurgency: How the Professional Military Literature Created a New History and Missed the Past,” *Journal of Strategic Studies* 32, no. 4 (August 2009).

⁷ The following two paragraphs are based on a forthcoming book by Ucko and Egnell.

⁸ John Mackinlay made this point in 1997, some time before the war in either Afghanistan or Iraq. See Mackinlay, “War Lords,” *RUSI Journal* 143, no. 2 (1998), 25. It does not render historical counterinsurgency campaigns entirely irrelevant to the wars of today and tomorrow, however. As David French perceptively argues, the discontinuity, although extant, can also be exaggerated. See French, *The British Way in Counter-insurgency 1945–1967* (Oxford: Oxford University Press, 2011), 252–253.

⁹ John Mackinlay, *The Insurgent Archipelago* (London: Hurst, 2009), 6.

¹⁰ Frank G. Hoffman, “Neo-classical Counter-insurgency?” *Parameters* 37, no. 2 (2007), 79.

¹¹ See Thomas Rid and Marc Hecker, *Irregular Warfare in the Information Age* (Westport, CT: Praeger Security International, 2009).

¹² U.S. Army/Marine Corps, *Counterinsurgency Field Manual* (Chicago: University of Chicago Press, 2007), 2.

¹³ Ibid.

¹⁴ See as an example Séverine Autesserre, *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding* (Cambridge: Cambridge University Press, 2010).

¹⁵ Dave Maxwell, “Why Does Special Forces Train and Educate for Unconventional Warfare?” *Small Wars Journal*, April 25, 2010.

U.S. Army (Zackary Root)

**Soldiers load patient onto UH-60 Black Hawk
at Forward Operating Base Shank, Afghanistan**



FORWARD-DEPLOYED **MEDICAL ASSETS** AND THE COIN OFFENSIVE

By **DAVID S. KAUVAR**
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Deployed U.S. military medical assets are primarily structured to support combat operations on the conventional battlefield, but they are increasingly deployed in support of expeditionary counterinsurgency (COIN) operations. The development of doctrine to guide medical support in a COIN environment has not kept up with the brisk pace of operations, resulting in significant gaps in the capabilities necessary to meet needs. With the publication of Field Manual 3-24, *Counterinsurgency*, in 2006, the U.S. Army and Marine Corps jointly developed a strategic framework to guide COIN operational planning, but medical and health support activities are not mentioned.

Historically, deployed medical units have employed mission profiles reflecting the U.S. Army Medical Department motto, “to conserve the fighting strength.” While a necessary primary mission, caring only for friendly force casualties, injuries, and illness vastly underutilizes deployed medical resources.¹ This situation is especially true at the forward-deployed levels of care, where battalion-level medical companies and brigade-level forward surgical teams (FSTs) are scattered over the battlefield and generally care for a young, fit force operating on the relatively nonkinetic COIN battlefield.² Larger deployed medical units such as combat support hospitals are more fully utilized; they act as clearing-houses in the evacuation chain for friendly force sick and wounded from many smaller units. Given the civil-military emphasis of COIN operations, integrating the activities of small, forward-deployed medical assets into the broader COIN “offensive” is a clear step toward achieving mastery of

the comprehensive set of capabilities that modern COIN warfare embodies.³

U.S. special operations forces (SOF) medical units have consistently demonstrated the feasibility of targeted medical operations in COIN. The medical seminar and medical mentorship approaches have achieved tangible goals in SOF COIN engagements. These techniques should be transitioned to conventional medical assets in COIN theaters of operations. Our hypothesis is that conventional, forward-deployed military medical assets can and should be used in expeditionary COIN operations as low-cost, high-value force multipliers. We address this by first answering the question, “Why should conventional medical assets play a role in the COIN offensive?” After presenting the rationale for the involvement of deployed medical assets in COIN operations, we answer the question, “How do we do this?”

Such areas are primarily served by smaller, forward-deployed military medical units, such as medical companies and FSTs. Not coincidentally, these areas tend to be havens for insurgents because the government has limited presence. The relationship between insurgency and underserved populations multiplies the positive effect of health engagements in the broader context of the COIN campaign, resulting in medical operations that are inherently high in value. This is evident in the unique perspective and information gained through the conduct of medical operations in Afghanistan and Iraq.⁶

In addition to being high-value, forward-deployed medical assets can participate in direct COIN engagements with ready availability and low cost. Conventional medical companies and FSTs will always be deployed to support combat

point that real improvements are possible in the indigenous health sector. Even in reconstruction-focused operations such as medical projects, the inability to maintain security in the inherently unpredictable COIN security environment can easily impede progress.⁸ To maintain the support of the indigenous population, civil health reconstruction must begin simultaneously with security operations, establishing a “feedback relationship” between access to health services and freedom of movement of the populace.⁹ Military medical assets are designed to support combat operations in an unstable security environment and are well suited to direct participation in COIN engagements, especially during initial stages when the security situation is particularly volatile.

Provincial Reconstruction Teams (PRTs) are hybrid military-civilian units developed to support COIN operations in Iraq and Afghanistan. They are charged with facilitating reconstruction efforts and focus primarily on infrastructure development. PRTs have historically been lacking in medical assets and have no inherent medical care capacity. This limits their usefulness in direct medical actions as part of a broader COIN offensive. Coordination between expeditionary military medical assets and NGOs, PRTs, and other governmental agencies is vital to the strategic success of medical COIN operations. Synchronization between all groups involved in medical civic actions is necessary to avoid duplication of effort, present a united position of support for the legitimate government, and prepare for transition to nonmilitary agencies when military assets leave the COIN theater.

Civil-military operations performed by small, forward-deployed conventional medical units at the battalion and brigade levels should be an integral part of COIN tactical planning and execution. Engagements should be focused on increasing indigenous health-sector capacity in the name of the legitimate government. Employed in this way, medical units can move from the sidelines to the frontlines of a COIN campaign and contribute to its success.

How Do We Do This?

Insurgencies embody unique characteristics of the societies they arise from. Strategies and tactics to counter them must be tailored to exploit the specific avenues

operations to legitimize the indigenous health sector would be most effective in underserved rural areas

Why Do This?

In expeditionary COIN, the territory contested is the support of the populace for the legitimate host nation government. Rather than the typical approach of “winning hearts and minds,” the goal of COIN has been recast as providing the population with “a sense of order and predictability to their lives.”⁴ Expeditionary COIN operations strive to assist the host nation government in achieving legitimacy as a source of stability for the governed. For a government to achieve legitimacy, it must demonstrate a capacity to provide four essential types of security: physical, economic, ideological, and—the subject of this article, health. A government must be able to answer the question, “Who will care for me and my family when we are sick or injured?” Increasing the capacity of the indigenous health sector is the most effective use of deployed medical assets in COIN.⁵

Expeditionary medical units in a COIN environment should develop operations to stake an underserved host nation population’s need for health care to the legitimate host nation government’s ability to provide it. Operations to legitimize the indigenous health sector would be most effective in underserved rural areas where the need for basic health care is most acute.

forces in forward areas. These units deploy with supplies, facilities, and expertise that can be leveraged at low cost to accomplish specific COIN missions. Leveraging assets can be accomplished with minimal impact on the primary mission of caring for friendly battle casualties because COIN operations tend to be relatively nonkinetic, resulting in far fewer serious casualties than conventional operations. Once established, most of the costs of running these facilities are fixed—remaining the same regardless of the volume of care occurring at the facility and whether the patients are friendly forces or local nationals.

Nongovernmental organizations (NGOs) such as the International Committee of the Red Cross and nonmilitary governmental agencies such as the U.S. Agency for International Development are already involved in health support and reconstruction operations in many areas beset with insurgencies. Despite their expertise in development, civilian agencies should not be the only “key enablers of a successful COIN strategy.”⁷ The level of civilian participation in these operations is directly related to the security situation. Only as security is established can civilian participation safely increase to the



U.S. Army (Nazly Confesor)

Combat medic dresses wounded hand of Afghan National Army soldier after IED attack

to increase legitimacy presented by each situation.¹⁰ While it is impossible to fully characterize the particular tactics that will be successful in a medical COIN operation, the general principles for medical engagements can be elucidated. These principles create a framework that should be used for planning and executing such operations.

Medical operations in COIN must always strive to increase the capacity of the indigenous healthcare sector to care for the host nation's population. Simply having expeditionary medical assets provide care to local civilians in the manner of the traditional medical civic action program (MEDCAP) does not meet this goal and is not advisable for several reasons. The inherently transient nature of MEDCAP engagements risks alienation of the population when military assets are no longer present and disaffection when frequently encountered complex medical needs cannot be met during a short humanitarian mission. Additionally, when foreign military medical assets provide direct

care to host nation civilians, a reliance on these assets is established. The reliance on foreign care marginalizes the local health sector in the eyes of the population, directly countering the strategic objective of increasing indigenous legitimacy.¹¹ Limited MEDCAP-type operations may be valuable during the initial phases of an expeditionary COIN operation in order to accustom the population to working with military medical personnel, but these should be performed in concert with indigenous healthcare providers and rapidly transitioned to more sustainable practices.

Medical COIN efforts should be focused where the need for health sector improvement is most acute. Healthcare sophistication spans a continuum from no available care (0) to the best care available in the developed world (10). The people of an area such as Uruzgan Province, Afghanistan, for instance—where we have planned and participated in such activities—have limited access to fairly primitive care. If this area rates 0.1 on the aforementioned continuum,

a reasonable goal would be a tenfold increase in sophistication, bringing the score to 1. This can be done relatively cheaply and is certainly within the capabilities of a deployed military medical company or FST. A further tenfold increase would require bringing healthcare sophistication to the level of a modern Western hospital, which would cost millions of dollars and is completely unfeasible.

Placing indigenous personnel and assets in the lead is essential to the success of any COIN operation. Personnel from forward-deployed medical units must frequently engage leaders of the indigenous healthcare sector and build durable relationships. These interactions and relationships will become the core of medical programs and maximize sustainability. Local stakeholders should be required to provide a realistic and truthful view of their specific needs in consultation with expeditionary forces prior to planning any health operation. This assessment process should continue for the duration of intervention, and



U.S. Army (Seth Barham)

Medic reviews lesson plan for combat lifesaver refresher class in Farah Province, Afghanistan

programs should be flexible enough to adapt to changing needs over time. Setting realistic goals is another key aspect of program planning. It must be feasible to meet the goals of a program within operational constraints including resource availability and security. The expectations of local stakeholders should be reasonable as well. In COIN, it is often worse to break a promise than not to make one at all.¹²

COIN medical programs should be designed to meet the goal of decreasing reliance on expeditionary military medical assets. Indigenous resources should be used to the maximum possible extent in any medical COIN engagement. Local stakeholders have insight as to what resources are available locally and should provide the labor, expertise, and materiel for programs in which expeditionary forces participate. Health-sector leaders should be heavily involved in programs directing the distribution of humanitarian aid such as medical supplies, durable equipment, and medical devices coming from foreign sources.

Forward-deployed medical assets employ highly trained but frequently underutilized medical personnel. Leveraging their knowledge and skills to train members of the indigenous health sector costs nothing and represents the most powerful and sustainable type of medical COIN operation. Training programs should follow a “train-the-trainer” regimen in which individuals trained by the deployed military unit are utilized as trainers for other indigenous healthcare personnel. Use of this technique exponentially increases the capacity-building impact of COIN medical programs. In underserved areas, training by expeditionary forces should be accompanied by a commitment on the part of the trained providers to remain in the underserved areas following the completion of training. Programs should be tailored to impart the skills and knowledge most relevant to indigenous needs and capabilities. Teaching rural medical providers to read diagnostic X-rays does not improve their ability to serve in a clinic with no X-ray machine.

Programs in Tarin Kowt

An example of a successful COIN medical training program is the Afghan Medical Training Partnership and Validation (AMTPV) program, which we have participated in at the Special Operations Forward Surgical Element (FSE) in Tarin Kowt, Afghanistan. Tarin Kowt is the capital of Uruzgan Province, one of the most rural and poor in Afghanistan. An assessment by district health officials and special operations physicians in 2010 revealed that the Tarin Kowt Provincial Hospital had essentially no personnel trained to care for victims of significant injury, and almost all injured local nationals were being cared for at U.S. facilities. The medical capabilities available at the hospital (that is, basic operative, laboratory, X-ray, and ultrasound) were similar to those of the forward-deployed U.S. FSE, but a significant deficit was noted in the knowledge and skills of the hospital providers. Building trauma care capacity at the hospital would greatly improve the care provided to Afghans in the ongoing insurgency.

A 3-year training program was initiated with 12 participants from the provincial hospital. Four groups, each consisting of a physician, anesthetist, and nurse, spend one 3-month period per year living and working alongside FSE personnel at the U.S. facility. These individuals participate in all aspects of care under the supervision of U.S. military providers. The remainder of the year is spent working at the hospital and training other providers. The trainees are modestly paid through the local U.S. commander's discretionary funds and, in exchange for their participation, have committed to practice at the hospital following completion of the program. The AMTPV program costs little, is entirely sustainable, and has resulted in dramatic improvements in the care of injured patients at the hospital and a reduction in reliance on U.S. and coalition care in Uruzgan and surrounding provinces.

To fully engage the indigenous health sector, expeditionary medical units should pursue integration with host nation health-care facilities. The resources available at even smaller deployed military units may exceed those routinely available at indigenous facilities, so patient transfer agreements can facilitate the best available care for local patients. When local providers training at military facilities participate in the care of host nation patients, capacity-building still occurs even though care is being provided at military facilities. The medical director of Tarin Kowt Provincial Hospital has the authority to request the transfer of patients with complex injuries to U.S. FSE for surgical care currently unavailable at his facility. At the earliest opportunity following surgery, patients are transferred back to the care of providers at the provincial hospital. Because AMTPV participants care for these patients at the FSE, at no point is a patient's care solely being provided by U.S. personnel. Command support of the medical COIN mission is vital due to the security implications for local patient and provider movement on and off forward-deployed military installations.

The indigenous military will likely be fighting the insurgency long after the redeployment of expeditionary assets. Medical units contribute to the hastening of turnover of security operations by developing training and patient care relationships with partner force medical elements. Performing realistic combat casualty care training with indigenous military personnel facilitates their prog-

ress toward independence from expeditionary medical support. Additionally, wounded host nation military casualties cared for by deployed units should be transferred to host nation military medical facilities as soon as feasible. U.S. personnel from the FSE in Tarin

schedule for local and partner force providers or zero missed appointments from scheduled clinics for local nationals. Medical programs should allow for increasing indigenous sector participation in care and should adapt as local capabilities expand

medical programs should allow for increasing indigenous sector participation and should adapt as local capabilities expand

Kowt engage in weekly trauma care education and simulation with the Afghan National Army (ANA) 8th Commando *Kandak* (Pashto for *camp*) and ANA 4th Brigade medics and physicians. When partner force casualties are treated at the FSE, their care is transitioned to ANA facilities as soon as possible. This relationship has resulted in meaningful advances in these ANA units' abilities to care for their own casualties.

Other Considerations

The nature of the COIN environment is one of fluctuating security and civil considerations. Accordingly, medical COIN operations should be flexibly designed and executed. Giving host nation medical providers and patients access to a medical facility on a base in a combat environment is the prerogative of the local combatant commander. Establishing buy-in from this individual and his staff is crucial. Keeping local authority over the activities of forward-deployed medical units with the combatant commander (rather than with higher level medical commands in the theater) maximizes operational flexibility at the tactical level. This relationship allows operational flexibility for medical COIN activities and facilitates synchronization with other civil-military COIN activities in the battlespace. The local SOF task force commander oversees the Tarin Kowt FSE day-to-day operations while administrative authority rests with the theater-level special operations medical command. This structure allows the FSE to easily respond to the specific needs of Uruzgan Province's health sector while maintaining materiel and administrative support from higher levels of medical command.

Changes in the local security situation will affect the movement of patients and providers between indigenous and military facilities. It is unreasonable to expect 100 percent compliance with a rigid training

over time. The successful "clear-hold-expand" framework in use for civil-military operations in COIN should be applied to medical engagements. The process begins with the clear phase, an initial needs assessment and program planning. Following this, program implementation represents the hold phase. As improvements are made or situations change, a continual needs assessment process results in modifications to existing programs or new engagements in the expand phase. Utilizing this framework results in dynamic programs responsive to the changing needs of the indigenous population and suits the variable COIN operational environment.

Assessing the effectiveness of medical engagements in COIN is crucial to ensuring ongoing success. Planning for such assessments should take place prior to the implementation of programs and the assessment process must be continual. Because the goal of engagement is to increase indigenous healthcare capacity, progress should be evaluated from the perspectives of host nation stakeholders rather than those of expeditionary forces. This ensures that what is being measured are the health-related outcomes of engagements and not just the outputs of provided care. An example is measuring changes in the monthly percentage of occupied beds at Tarin Kowt Provincial Hospital rather than the number of host nation civilians treated at the FSE. The former is an outcome of an intervention and the latter is the intervention's output. If the FSE is seeing more patients while the hospital's bed census is unchanged, no progress is being made in increasing its capacity, and any relevant initiatives should be reexamined.

Concluding Thoughts

There are three critical enablers of COIN medical engagements by forward-



Army medics unload mock casualty from UH-60 Black Hawk during training exercise at Joint Readiness Training Center, Fort Polk

deployed medical units. The first is motivated expeditionary personnel who are willing to think beyond the doctrinal mission of conserving the fighting strength. These individuals will be culturally open-minded and willing to treat all patients equally. They will feel they have a stake in improving the indigenous healthcare sector. Not all personnel deployed with a unit will have these characteristics, but those who do should be sought out and challenged with this mission. Dedicated interpreters are crucial. Their expertise in language is obviously essential, but they also provide vital links with the local health authorities and valuable cultural insights on health and disease. Having interpreters embedded with units allows them to become medically savvy, and this understanding greatly facilitates integration with host nation facilities and personnel. Finally, the support of both medical and combatant commanders is absolutely essential to mission success. Medical commanders have to think outside of the doctrinal box to allow the leveraging of their assets to perform COIN missions. Combatant commanders must be willing to synchronize their civil-military COIN activities with medical engagements and to accept

and mitigate the security risk that comes with such engagements.

Small, forward-deployed medical units are ideally suited to perform civil medical engagements in counterinsurgency. These units' capabilities can be leveraged at low cost and with high value, making them force multipliers. Though programs will differ depending on specific theater and local characteristics, increasing the capacity of the host nation indigenous healthcare sector is the desired endstate. Programs should be focused through collaborative needs assessments and designed to leverage skills and knowledge toward sustainable health goals. **JFQ**

NOTES

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¹² Kilcullen, 47.

Member of Human Terrain Team talks with village residents during patrol in Sher'Ali Kariz, Maiwand District, Kandahar Province



U.S. Army (Jason Nolte)

THE WAY AHEAD FOR Human Terrain Teams

By CHRISTOPHER J. LAMB, JAMES DOUGLAS ORTON,
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General Raymond T. Odierno, Chief of Staff of the Army, learned from his three combat tours in Iraq that the U.S. military needs to better understand local populations and their social, political, and cultural attributes. He concluded that the more we understand the human domain, the less combat force it takes to prevail in counterinsurgency.¹ Similarly, during his confirmation hearing before taking command of U.S. and North Atlantic Treaty Organization (NATO) forces in Afghanistan in June 2010, General David Petraeus told Congress that the decisive terrain in counterinsurgency was “the human terrain.”² These leaders understand that effective counterinsurgency requires protecting and eliciting cooperation from the population—the human terrain—which, in turn, requires a keen understanding of the population’s social and cultural characteristics.

The Army created Human Terrain Teams (HTTs) to provide combat forces in Afghanistan and Iraq with knowledge of the *human terrain*, or put differently, “sociocultural knowledge.” HTTs are small, cross-functional teams of specially trained military officers, research managers, and civilian social scientists that are typically appended to brigade-sized units. If HTTs do their job well, they can advise commanders on how to win popular support and isolate insurgents. If HTTs perform poorly, or are used unwisely or ignored by commanders, military operations are more likely to alienate populations and make success unattainable. The performance of HTTs is therefore intrinsically important both now in Afghanistan and in any future military operations against irregular forces.

In the past, the U.S. military has been slow to recognize the need for sociocultural knowledge, much less to institutionalize the capability to provide it. Now, however, with

glowing endorsement that captured the attention of Congress.³ Later, it became apparent that while HTTs often did good work and were widely appreciated by commanders, they were slow to provide value, inconsistent in performance, and insufficient in number. Ultimately, the HTTs failed to ameliorate growing cross-cultural tensions between U.S. forces and Afghans and were unable to make a major contribution to the counterinsurgency effort.⁴ Eventually, performance concerns precipitated a number of internal and external reviews of HTS and HTTs.

Commanders viewed HTT performance differently than others. Most commanders, when asked, state that their HTTs are quite useful, while HTT members themselves—those who have studied them and those charged with their oversight—are more likely to state that HTT performance is variable. The new study from NDU explains the origins of the performance variation,

while HTTs often did good work, they were slow to provide value, inconsistent in performance, and insufficient in number

senior officers believing that the military must retain the means to generate sociocultural knowledge to be well prepared for the future security environment, the key issue is how to do it well and efficiently. The place to begin answering that question is with a rigorous, balanced, and evidence-based evaluation of past HTT performance. If leaders understand this performance over the past decade, it is much more likely they will be able to provide ready and reliable knowledge of human terrain to U.S. forces in the future. Toward that end, this article summarizes a major study conducted at National Defense University (NDU) that offers an explanation for past HTT performance and makes recommendations on how to build on that experience.

Evaluating Performance

The Human Terrain System (HTS), which deploys HTTs, was formed in 2006 under the supervision of the U.S. Army Training and Doctrine Command (TRADOC). HTS deployed its first team to Khost, Afghanistan, in early 2007. Although it took time for the team to establish its relevance, it eventually won over the brigade’s commanding officer, who gave the team a

why the large majority of commanders found HTTs useful, and why HTTs collectively were unable to make a major contribution to the counterinsurgency effort. It also explains the tremendous challenges the HTS program faced in starting and rapidly expanding a nontraditional military program and why some challenges were met successfully while others were not. This article identifies HTS management challenges with an in-depth history of the program and provides an internal assessment of HTT performance based on 10 key small-team performance factors.⁵

Any study of HTTs must address the criteria for evaluating their performance. Previous studies agree that HTT performance should be judged by how well a team provides sociocultural knowledge to improve a commander’s decisionmaking. They also agree that feedback from commanders is the primary means of making that assessment.⁶ Our study used this criterion and these data, but also considered performance evaluations from other sources. The study relied on interviews with more than 100 team members, former HTS managers, commanders, and other experts to assess the factors that best explain variations in team performance. Before analyzing team performance, however,

we first developed a detailed chronology of HTS history and management issues.

Historical Overview of HTS

A former HTS director acknowledged some of the controversy surrounding the program when she observed that the “HTS story is one of challenges, rewards, stumbles, and successes.”⁷ The hundreds of articles written about HTS are polarized around advocates who focus too much on the program’s rewards and successes and critics who emphasize its challenges and stumbles. To conduct a rigorous study of HTS, it was first necessary to generate a thorough and balanced history that recognizes program achievements without ignoring shortcomings. That history can be summarized as a set of sometimes overlapping developmental periods.

The first period, gestation, began following the terror attacks on September 11, 2001, when the need to understand human terrain in order “to help narrow the search space for terrorists and terror groups”⁸ became evident. The momentum for more investigation in sociocultural knowledge increased after the intervention in Iraq when experts pointedly told Congress the United States did not have sufficient knowledge of the human terrain to conduct a counterinsurgency operation.⁹ However, it was not until 2005 that a new organization supporting warfighters funded an effort to produce a device that would store information about the human terrain of a defined area including the social networks involved in the production and placement of improvised explosive devices (IEDs). Several HTS progenitors convinced the Joint IED Defeat Organization (JIEDDO) that the solution required a nontechnological component with human experts, a shift in perspective that advanced further when 10th Mountain Division submitted an operational needs statement in late 2005 requesting such a capability.¹⁰

The second HTS phase began with its actual birth in June 2006 when JIEDDO officially agreed to fund five test teams.¹¹ Getting the HTS program off the ground proved difficult and time-consuming. HTS leaders had to quickly recruit a management team and find a way to field teams to test the concept. Rapidly hiring 25 people to populate the first experimental teams was not possible, so by September the number was scaled down to a single team to be fielded in early 2007.



U.S. Army (Charles M. Willingham)

Human Terrain Team social scientist with interpreter inspect conditions at U.S. Department of Defense-funded Al-Arshad Desert School Agricultural Research Center, Najaf Province, Iraq

The third developmental stage of the program was its proof of concept. The 82nd Airborne Division agreed to test the first experimental HTT with one of its brigades deploying to Afghanistan in early 2007. The HTT, designated AF1, arrived in Afghanistan in February 2007 to join 4th Brigade, 82nd Airborne, in Khost. Initially the brigade had no idea how to use the team. The team members tested a variety of activities to demonstrate their utility, but it was not until Operation *Maiwand* in June 2007 that the brigade realized how useful the HTT could be. The brigade commander and his staff concluded that the HTT's work with the population in advance of operations helped reduce kinetic activity and therefore lowered brigade casualties.

Meanwhile, multiple requests from other field commanders coalesced into a Joint Urgent Operational Needs Statement issued by U.S. Central Command in April 2007 that requested 26 HTTs across two theaters of war. The original HTS model for developing HTTs changed with the

sudden increase in demand. Previously, HTS management focused on the need to create, field, and test the experimental team in Afghanistan.¹² Now there was little time to analyze the AF1 experience critically. Instead, the replacement team for AF1 and five new teams that were quickly being trained and deployed to Iraq became the proof-of-concept effort for the HTS program. The performance of the five Iraq teams, IZ1 through IZ5, was mixed. For example, the level of interpersonal conflict on IZ1 was so "untenable" that individual members left the team to work directly with battalions, and IZ5 "fractured" and had to be withdrawn.¹³

Given developments at the theater level, the emphasis on building operational HTT capacity was understandable. The Pentagon was firmly backing new capabilities for irregular warfare. In November 2007, Secretary of Defense Robert Gates cited the program as an example of necessary adaptation for irregular warfare. He noted that bringing in "professional anthropologists as advisors"

was healthy and was "having a very real impact."¹⁴ A few months later, after negative depictions emerged, Gates continued to back the program, characterizing any missteps as "attendant growing pains"¹⁵ common in new programs. With U.S. Central Command, General Petraeus, and Secretary Gates all supporting HTS, the nascent effort was safe for the time being and its budget was expanded to cover the costs of deploying more teams.

HTS then entered a period of rapid expansion that its leaders would later describe as a "catastrophic success."¹⁶ HTS managers quickly had to recruit, select, train, and retain qualified personnel to field 26 teams. For one thing, securing quality recruits was a challenge. To attract and select personnel, HTS was obliged to use the existing omnibus contract TRADOC had in place, a contract that was later described by the HTS program manager as "totally and completely inadequate" for this purpose.¹⁷ Consequently, questionable personnel were being screened into the program. Even so, HTS struggled to fully staff the growing



U.S. Army (Crystal Davis)

Human Terrain System Soldiers and civilians speak with Afghans during key leader engagement in southern Kandahar Province

number of teams. In 2008, the program had a 30 percent attrition rate during training that effectively cost \$7 million¹⁸ and meant a training cycle had to be about 50 percent larger than absolute demand.

The overwhelming number of trainees who left the program simply quit. Much of their dissatisfaction was attributed to the inadequacy of the training program, and in particular, the poor relationship between the training and the tasks performed in the field. The factors that produced high-quality team performance were unknown, so training involved an element of trial and error. HTS management did not systematically collect feedback from field experience, but adjusted the training curriculum based on its impressions of what worked well in the field. The training was also complicated by variation in class composition. It was not uncommon to have an incoming class with many more team leaders and research managers than social scientists or human terrain analysts. An uneven distribution made it difficult to assemble teams and have them train with brigades prior to deployment.

counter negative publicity, improve HTT performance, and find a way to prevent HTT disasters that alienated commanders and hurt the program's reputation even while overseeing the drawdown of HTTs from Iraq and increasing the number of teams in Afghanistan from 6 to 22. Afghanistan's human terrain was the centerpiece of General Stanley McChrystal's new campaign plan for Afghanistan, and there was great pressure to field capable HTTs there quickly. Congress increased funding to meet the new requirements in Afghanistan, but it also signaled reservations about the program by requiring a study of the management and organization of HTS to be delivered by March 1, 2010.²¹ In a March 31 meeting with reporters, Secretary of the Army John McHugh also implied the program was on a probationary status by refusing to endorse it, stating instead that he was "neither happy nor unhappy"²² with HTS.

While HTS took on these challenges, TRADOC moved to exert more control over the program. TRADOC leaders approved a new contract with the company that HTS

new policies and procedures for HTS that it hoped would improve performance.²⁵

In retrospect, it seems clear that support from field commanders saved an HTS program under pressure and undergoing wholesale management changes. The report to Congress helpfully noted that combat forces appreciated their HTTs, and when a journalist asked General Petraeus about HTS, he responded by email from Afghanistan: "It is working. I hope it's here to stay."²⁶ In December 2010, HTS was given a green light from U.S. Central Command to grow the HTT program from 22 to 31 teams by summer 2011.

Several important observations can be made based on this brief history:

- The Pentagon was slow to stand up a program for providing ground force commanders with sociocultural knowledge,²⁷ deploying the first HTT more than 5 years after Operation *Enduring Freedom* commenced.

- HTS only stood up because another new organization—JIEDDO—had the flexibility to push resources at promising new ideas, and defined its mission broadly to launch a personnel-intensive program in a system primarily focused on new technology.

- TRADOC, an organization that does not normally field units, had trouble meeting the high demand for HTTs from commanders in the field.

- HTS never had a theory of performance, validated by field experience, that it could use to inform its training program or explain the optimum role for HTTs to commanders.

- HTS survived because commanders valued HTTs.

HTS's tenuous existence is unlikely to change. Major cuts in the defense budget are forcing a careful reexamination of all defense programs, especially those perceived as niche capabilities created for recent operations in Afghanistan and Iraq. In this environment, sociocultural programs must convince senior leaders that they meet enduring requirements efficiently. In the case of HTS, this requires a compelling explanation for past HTT performance variation. Without understanding the origins of past performance variation, it will be hard for HTS to convince skeptics that it can manage the program to better, more consistent performance in the future.

under the new management team, the program entered a period of more intense Army institutionalization at a precarious time for HTS

Recruitment, training, and other management challenges were exacerbated by increasing public criticism. In October 2007, the American Anthropological Association cited perceived ethical shortcomings,¹⁹ and in May 2008, the Society of Applied Anthropology similarly expressed "grave concerns" about the program. Some well-publicized HTT failures in the field worsened the perception that the program was struggling, and it seemed like the tide of informed opinion was turning against it. For example, a July 10, 2008, editorial in *Nature* stated that the program could be a win-win effort for local populations and the U.S. military. Five months later, the influential magazine reversed its position and called for the "swift close" of the program, concluding, "In theory, it is a good idea. . . . In practice, however, it has been a disaster."²⁰

In fall 2009, HTS entered a critical yearlong period marked by the need to expand HTTs in the field while management conflicts were on the rise. HTS leaders had to resolve training and retention problems,

thought was the root cause of its recruitment problems and agreed to job descriptions for HTT positions that were not accurate and that complicated recruitment and retention of quality personnel, all without HTS input.²³ TRADOC also initiated two internal investigations of HTS,²⁴ and finally, in June 2010, replaced the HTS program manager with a trusted insider from the TRADOC staff. Other members of the original HTS team left as well, and soon there was a completely new management team in place that was firmly under TRADOC control.

Under the new management team, the program entered a period of more intense Army institutionalization at a precarious time for HTS. A month after the new program manager assumed her duties, the study demanded by Congress was delivered to Capitol Hill. The report identified problems regarding TRADOC's management practices. To assuage critics, TRADOC and the new HTS leaders let a new contract with a new company. TRADOC also established

HTT Performance: An Explanation

To explain HTT performance, it is first necessary to explain why commanders typically rated HTTs more highly than the people who managed or studied them did, and second, to identify the optimum role HTTs could play in an integrated cultural intelligence architecture. It is clear that the large majority of commanders thought their HTTs were useful (see table²⁸). However, it is not immediately apparent *why* commanders valued HTTs (or not).

To determine levels of commander expectations for HTT performance, we categorized commander praise and criticisms of HTTs according to three levels of cultural knowledge previously postulated by some subject matter experts.²⁹ The levels roughly equate to the social science objectives of accurate description, explanation, and prediction:

- First level: Cultural awareness. Basic familiarity with language and religion and an understanding and observance of local norms and boundaries. This roughly equates to good description of human terrain. It was often observed by commanders that such description is needed at the tactical level, down to battalion and company levels if not below.

- Second level: Cultural understanding. The “why” of behavior embodied in perceptions, mindsets, attitudes, and customs. This roughly equates to explanation of human behaviors. Perhaps because brigade commanders were the focus of interviews, it is not surprising that this level of understanding, which presumably is important at all levels, was emphasized at the brigade level.

- Third level: Cultural intelligence. The implications of these behaviors and their drivers. This roughly equates to antici-

pation of popular behavior. The ability to anticipate reactions can shape theater-level decisionmaking.

Brigade commanders were not predisposed to believe HTTs would make contributions at one level of cultural knowledge or another. They generally had a “wait and see attitude” about HTT performance. However, the majority of those commanders who provided more specific reasoning for why HTTs were helpful underscored their contributions at the first level, noting they provided continuity of situational awareness across multiple brigade deployments and faster situational awareness than was possible without an HTT. They also noted that the teams could help spread this basic situational awareness through their forces by providing training on basic Afghan customs (dos and don’ts) and instruction on how to collect information on human terrain effectively.

Fewer commanders, typically those who worked with the handful of widely acknowledged superlative HTTs, testified that the HTTs contributed at the second level of cultural knowledge. These teams not only helped describe the human terrain, but they also explained the behaviors in ways that helped commanders tailor their brigade operations. In this vein, commanders stated that with HTT help, they could better understand the consequences of their decisions, which facilitated course of action analysis and other benefits, such as:

- reduced friction with the population (which in turn reduced casualties)
- support for political reconciliation by identifying who had power, trust, and resources, and what their motives were

- improved information operations by helping tailor message content and style to reach Afghan audiences better

- better “damage limitation” when untoward events occurred that had to be explained and compensated for with the Afghan populace.

Rarely did brigade commanders assess HTT performance in ways that suggest they were capable of the third level of cultural knowledge, which provides deep insights on the origins and implications of Afghan behaviors and decisionmaking. The best explanation for why U.S. forces need all three levels of cultural knowledge is a 2010 paper by Major General Michael T. Flynn, USA, and other military officers entitled *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*. The paper articulates a cultural intelligence architecture that makes it possible to identify the ideal role for HTTs and to better interpret commander reactions to HTTs in practice.

Fixing Intel notes that in counterinsurgency, “the most salient problems are attitudinal, cultural, and human,” and that theater commanders need to keep abreast of these concerns on a daily basis. In a counterinsurgency, small units supply key intelligence to higher commands rather than the other way around. For this reason, all soldiers must be intelligence collectors who enable higher level analysts to create “comprehensive narratives” for each district that “describe changes in the economy, atmosphere, development, corruption, governance, and enemy activity” and “provide the kind of context that is invaluable up the chain of command.”³⁰ However, General Flynn argues that brigade-level commanders

Comparison of Studies Sampling Commander HTT Assessments

	Successful	Partial Success	No Impact or Ineffective
West Point Study	Highly valued 4		
Center for Naval Analyses Study	Very useful 5	Varied usefulness 8	Not useful 3
Institute for Defense Analyses Study	Success: the Brigade Combat Team could not have been successful without the HTT efforts 26	Partial Success: on balance, the HTT did more good than harm 9	No impact (regardless of reason) 1
National Defense University Study	Effective 8	Mixed effectiveness 4	Not effective 1

*must authorize a select group of analysts to retrieve information from the ground level and make it available to a broader audience, similar to the way journalists work. These analysts must leave their chairs and visit the people who operate at the grassroots level—civil affairs officers, [Provincial Reconstruction Teams], atmospherics teams, Afghan liaison officers, female engagement teams, willing [nongovernmental organizations] and development organizations, United Nations officials, psychological operations teams, human terrain teams, and staff officers with infantry battalions—to name a few.*³¹

In short, primary collection is done at the small unit level where there are “many sensors,” and analysis of the diverse descriptive inputs is done at the brigade level, where there are more resources, and then the information is passed along to the regional (or division) level to create a comprehensive composite understanding of the situation.

The Flynn explanation for how the entire force, aided by “select teams of civilian analysts,” should produce cultural intelligence helps make sense of the diverse commander assessments of HTT performance. The few, small, and costly HTTs best served brigade commanders at the second level of cultural knowledge rather than being used at the first level as small-unit data collectors. If the teams were used as data collectors, they perhaps pleased commanders but ultimately were too few in number to make a difference. As one brigade commander commented, using HTTs as collectors was like using a squirt gun to fight a forest fire. HTTs cannot serve as a substitute for a larger, more comprehensive effort to collect and analyze cultural intelligence. Instead, the optimum role for HTTs is to perform at the second level of cultural knowledge where they can help explain local human terrain to the command staff and facilitate decisionmaking. HTTs that did so improved brigade command decisionmaking and received the most effusive commander praise.

With the nuances of commander assessments and the optimal role for HTTs clarified, it is easier to make sense of other factors that determined the teams’ performance. There were several broad preconditions for HTT productivity, the first of which was beyond the control of HTS and the HTTs:



U.S. Army (Raul Elliott)

Human Terrain System leader and PRT members listen to briefing during meeting at Contingency Operating Base Speicher, Tikrit, Iraq

- HTTs had to be appended to a brigade commander and staff that were committed to a population-centric counterinsurgency approach.

- HTTs had to prove to typically skeptical commanders that they could make a contribution.

- HTTs had to overcome the many intrinsic constraints on productivity that characterized the HTS program at the organizational, team, and individual levels.

These preconditions for success underscore several points. First, there are limits to what any sociocultural program can do without a consensus among brigade commanders on the critical importance of human terrain, the role their own troops play in collecting human terrain data, and the analytic capability HTTs are supposed to provide to the brigade staffs as part of a larger, theater-wide human terrain-centric intelligence architecture. Absent a “whole force” approach to developing and using sociocultural knowledge such as General Flynn envisioned, the ability of HTS or any other small sociocultural teams to make a difference is quite limited.

Moreover, even if brigade commanders were open to the population-centric approach to counterinsurgency that theater commanders were emphasizing—and this has never uniformly been the case³²—they still took time for HTTs to prove themselves. This reduced efficiency, especially given the yearlong brigade tours for Afghanistan

that forced teams to repeatedly adjust to new commanders. In such circumstances, it was important to field cohesive teams that could be immediately productive. Ideally, HTTs should have been given more general expertise on Afghanistan and greater access to specific information about the areas they would operate in as early as possible. They should have been well-functioning teams composed of individuals with diverse expertise that trained together, bonded, and found their place on brigade staffs prior to deployment. They should have relieved predecessor teams in the field with a period of overlap with the outgoing teams, not as individual replacements. They should have had longer periods of deployment to deepen their expertise on local conditions and to permit the desired overlap with relieving HTTs and brigades (see the larger study for a detailed explanation of small cross-functional team performance factors).

For a variety of reasons, none of these conditions applied. Instead, HTTs were conceptualized, created, and managed in a way that made it hard for them to serve as cultural knowledge integrators for brigade commanders. Among other things, quickly winning commanders’ confidence was difficult given the way HTTs were raised and trained. Since HTT members were individually assigned to teams after arriving in country, they did not typically have a chance to get to know the other members, much less the brigade commanders and

staffs. Without predeployment training as a team, HTTs could not work out team dynamics in a less stressful environment or establish team decisionmaking processes until they reached the field where each new team member's arrival potentially disrupted established productive team practices. Deploying members singly inadvertently signaled that they were valued as individual assets rather than as teams. In a stressful combat environment, the failure to bond as teams was sometimes crippling.

by repeatedly integrating newly arriving members who deployed individually in staggered timeframes rather than as teams. This was a difficult proposition, and unfortunately, HTT leader performance was as variable as HTT performance. Autocratic team leaders were particularly out of place given the composition of the teams and their mission. They were a major factor in notable team failures. Those leaders who were able to overcome the many impediments to HTT effectiveness were indispensable and heroic

than the HTTs but can expand quickly to generate a HTT-like capability when U.S. forces go to war. To execute this transition, HTS will have to overcome a great deal of organizational inertia. The U.S. military has a strong cultural aversion to irregular warfare and to devoting resources to sociocultural knowledge.³³ This aversion is demonstrated repeatedly as the military abandons sociocultural knowledge and the means to acquire it once conflicts are over. Despite expressions of senior leader support, the HTS program is now being curtailed to save resources, and many believe it is an open question whether the knowledge painfully acquired by the program will be retained.

leaders had to get their teams operating smoothly and prove themselves to commanders quickly since their standard length of deployment was only 9 months

Moreover, the training the teams received was not based on a theory of HTT performance that was tested by feedback from actual in-country experience. Thus, the HTS program had no way to improve HTT learning and prepare teams for the significant challenges they would face. Some teams overcame their interpersonal conflicts and learned how to channel conflict into productive avenues that improved team performance, but many did not. If teams could not resolve conflicts productively, they stood little chance of developing a cohesive team culture or trust. In addition, the quality of HTT recruits was highly variable. Many recruits were alienated during training or joined for the wrong reasons and were unproductive after they deployed. In many cases, team members were not mentally or physically conditioned to operate in hostile or austere environments. In the rush to institute the program, HTS relied on high individual member remuneration, and even so it was hard to find and attract individuals with deep regional and linguistic expertise. Job satisfaction on high-performing small teams is more a function of team bonding and productivity than individual remuneration, but the program was structured to make the former difficult and to rely on the latter.

With so many impediments to high performance, HTTs were critically dependent on stellar and versatile leadership. Leaders had to get their teams operating smoothly and prove themselves to commanders quickly since their standard length of deployment was only 9 months and they had to ensure productivity over time

catalysts who were much admired by their team members. The HTS selection process did not screen team leader candidates for the attributes that correlated with such high performance; their presence was largely a matter of happenstance.

With performance constrained by so many external and internal factors, it is not surprising that it was variable. Even so, most commanders valued HTTs, which is a testimony to the people who populated high-performing HTTs, but also to the general lack of sociocultural knowledge in U.S. military forces that made even limited HTT contributions so necessary and conspicuous.

Future of HTS

The HTT experience demonstrates that it is difficult to develop sociocultural knowledge quickly; difficult to retain, update, and transfer that knowledge between units; and almost impossible to do these things without a well-developed concept for HTT performance that is based on empirical feedback from actual experience in-theater. Thus, the U.S. military needs a standing capability to provide a baseline of sociocultural knowledge that can be rapidly expanded in wartime. HTS and the many similar programs that stood up and proliferated during the wars in Afghanistan and Iraq could have been run much more efficiently if they emerged from a standing sociocultural knowledge program designed for that purpose.

Looking to the future, HTS now faces the challenge of transitioning to a standing peacetime sociocultural knowledge capacity that provides a different capability

One way to make the future of HTS more secure would be to house it in an organization that is predisposed to value sociocultural knowledge. The U.S. Army Special Operations Command (USASOC) meets the requirement for an organization that is familiar with what it takes to field small, high-performing, cross-functional teams such as HTTs. USASOC commands Special Forces, which already use a female version of Human Terrain Teams as well as civil affairs and military information support operations units that would benefit from better sociocultural knowledge. USASOC is part of U.S. Special Operations Command, which is often assigned the lead for irregular warfare and has other units (for example, Navy SEALs) that use Human Terrain Teams of one sort or another. For these and other reasons, USASOC might be a good fit for HTS.

Whether or not HTS is housed in USASOC, the need for a standing program to provide sociocultural knowledge should be well recognized after a decade of difficult military operations. Some Army observers, for example, believe the need for cultural understanding is one of the "top 5" lessons learned from the post-9/11 wars.³⁴ If this lesson is acted upon and HTS survives, those who lead it into the future hopefully will benefit from a thorough understanding of how and why HTTs performed as they did over the past decade. In that case, it should be possible to improve both HTT performance and chances for success in future irregular warfare operations. If, however, the program cannot learn from the past, or fades away for lack of support or other reasons, it is quite likely that the future of sociocultural knowledge in the

U.S. military will be much like its past—a story of too little knowledge, obtained and disseminated at great cost, often arriving too late to ensure success. **JFQ**

This article is based on the authors' book entitled *Human Terrain Teams: An Organizational Innovation for Sociocultural Knowledge in Irregular Warfare* (Institute for World Politics Press, forthcoming).

NOTES

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Environmental Planning While Deployed

Mission Hindrance or Enhancement?

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There is abundant doctrine requiring planners and operators to consider environmental protection in deployment operations. Joint Publication (JP) 3-34, *Joint Engineer Operations*, for instance, outlines environmental considerations for both domestic and foreign training and operations.¹ Many commands have also included an annex L in operation plans, which describes the overall environmental mission. However, these plans seldom include specific instruction or goals on the tactical level. In fact, although many lessons from the Balkans and other contingency operations have been documented and studied, lessons are now being relearned in the Iraq and Afghanistan operations.² In addition, despite requirements to conduct environmental health site assessments prior to establishing base camps, they were not always completed during Operations *Iraqi Freedom* and *Enduring Freedom* because commanders did not advise preventive medicine personnel where camps were being set up.³ This may be, at least in part, attributed to field commanders not being aware of the function of their preventive medicine assets.⁴ It should be noted that Final Governing Standards (FGS), or the Overseas Environmental Baseline Guidance Document (OEBGD) where FGS are not available, currently do not apply to contingency military operations. However, policy is being drafted to extend the FGS or OEBGD to contingency bases.

There is a difference between an environmental baseline study and an environmental health site assessment, though they are inextricably related. While an environmental baseline study evaluates the status of the environment, an environmental health site assessment evaluates the impact of the environment on the warfighter. In this article, we discuss both studies as they are key to successful military operations.

Troop Health and Safety

History is rife with examples of disease non-battle-related injuries (DNBI) being the dominating causes of casualties in military operations. Diseases associated with unsanitary conditions and close quarters such as dysentery, typhoid fever, pneumonia, and influenza were responsible for DNBI. As early as the Peloponnesian War, Thucydides documented vomiting, convulsions, painful

sores, uncontrollable diarrhea, and extreme fever among Athenians jammed together in unsanitary conditions.⁵ In fact, World War I marked the first time combat-related deaths outnumbered deaths from DNBI. Even then, a noted bacteriologist observed during preparations for World War I that “war is . . . 75% an engineering and sanitary problem, and less than 25% a military one. The wise general will do what the engineers and sanitary officers let him.”⁶ Nevertheless, these lessons have not been learned to the necessary extent. During the Soviet-Afghan war in the 1980s, 67 percent of Soviets who served in Afghanistan required hospitalization for a serious illness such as hepatitis, typhoid fever, plague, malaria, or cholera.⁷ During Operations *Iraqi Freedom* and *Enduring Freedom* from 2001 to 2006, evacuations for DNBI accounted for 35 percent and 36 percent, respectively, of all medical evacuation cases and were the largest single category of evacuations for both operations.⁸

In addition to communicable diseases, other environmental conditions can lead to debilitating injuries. At least 25 percent of the 697,000 who served in the 1991 Gulf War are afflicted with an enduring, chronic multisymptom illness commonly known as “Gulf War Syndrome.” Suggested causes include exposures to potential neurotoxins (pyridostigmine bromide pills, pesticides, and nerve agents), close proximity to oil well fires, and receipt of multiple vaccines.⁹ Even more recently, a jury ordered a military contractor to pay 12 U.S. Soldiers \$85 million in damages after failing to protect them from exposure to hexavalent chromium, a known human carcinogen, that contaminated a water treatment facility in Iraq.¹⁰ It is conceivable that had some of these environmental conditions been assessed more carefully, they could have been mitigated.

JP 3-34 stresses the link between the physical health of military members and mission readiness by noting that “failure to recognize environmental threats can result in significant health risks to the JTF [joint task force], adversely impacting readiness.” These threats include endemic insect- or rodent-borne disease as well as pollution

from soil, water, and air.¹¹ Over 40 cases from 1991 to 2006 were reported in which contingency-related incidents with negative environmental consequences actually or potentially affected the health of U.S. troops or others. These instances had a profound effect on the military mission. For example, a base camp that was poorly sited had to be dismantled and relocated, which distracted the unit from its primary mission. In another case, a 300-gallon fuel tanker overturned at a U.S. camp, but the spill was not officially reported or properly marked. Base planners had begun to construct sleeping areas at the site until officials learned of the spill. Construction had to be halted and started over at a new location.

Base camps generate large streams of waste. It is critical that this waste is managed properly to prevent contamination. Until recently, military bases in Iraq and Afghanistan routinely used burn pits to dispose of their solid waste. It is unclear exactly how

World War I marked the first time combat-related deaths outnumbered deaths from disease

many burn pits were operated and for how long. Notwithstanding the lack of clear epidemiological evidence linking burn pits with respiratory and pulmonary diseases, these operations have been eyed as a potential cause for these types of illnesses. As a result, Department of Defense Instruction 4715.19, “Use of Open-Air Burn Pits in Contingency Operations,” now prohibits long-term use of burn pits for certain kinds of waste and authorizes their short-term use only when no alternative disposal method is feasible.

Combat Effectiveness and Mission Success

Besides degradation of troop health and safety, failing to account for environmental factors can have a detrimental effect on meeting mission objectives. Forward operating bases (FOBs) generate hazardous wastes such as fuel, oil, other chemicals, and batteries. The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal prevents the United States from moving hazardous wastes out of a country in a timely manner. As a result, they tend to accumulate at these sites and, if not sited or managed



Naval medical personnel examine positive malaria blood smear at Naval Medical Research Unit, Callao, Peru

properly, could hinder mission effectiveness. For example, in Afghanistan, improperly stored lithium batteries resulted in two fires that released hazardous fumes, immediately putting the health of nearby personnel at risk. In Iraq, hazardous waste accumulation points were located near the base perimeter, making an attractive target for attack by insurgents. Also in Iraq, American units used heavy construction equipment that damaged the fragile topsoil (called desert pavement) that created dust storms, leading to visibility, breathing, and vehicle-maintenance problems. An appropriate environmental assessment factoring the local soil and environmental conditions might have prevented these problems.¹²

Although there may be trash in the streets and polluted water in a country where deployed operations take place, locals still care about their environment. In fact, public opinion data in Iraq from 2003 to 2005 indicated that environmental issues should be an important piece of reconstruction efforts.¹³ People care deeply whether their water will make their children sick, and they will be more likely to support forces that provide their basic needs. Field Manual 3-24, *Counterinsurgency*, notes that providing essential services such as sewage, water, electricity,

and trash is key to gaining support of the population. During Operation *Iraqi Freedom*, attacks on soldiers were reduced in sections of Baghdad where U.S. forces had provided at least some of these services.¹⁴

Failure to manage waste is counterproductive to meeting both strategic and tactical objectives. U.S. actions that are perceived as harmful to the environment can cause friction between Americans and nationals, which may promote instability and keep the United States from obtaining its political objectives. Therefore, diligent planning minimizing environmental impact must be conducted throughout all operational phases. However, the military is frequently inadequately staffed, trained, and equipped to deal with waste management. The Area of Responsibility Environmental Component Plan discusses the U.S. military's challenges in effectively managing waste streams, often relying on open burning of all forms of solid waste and non-ideal discharge lagoons for wastewater.¹⁵ While contractors may manage the waste generated at larger FOBs, smaller bases may assign the responsibility as an additional duty to military personnel.

In addition, tactical units often lack training in the use of appropriate environ-

mental practices. Due to strict environmental regulations in the United States, units conducting field training exercises are often required to bivouac in areas that have permanent lavatory facilities and water distribution and waste disposal systems. To make appropriate environmental practices part of a unit's culture, training facilities would better serve unit needs if personnel were allowed to construct and manage all aspects of an FOB including waste management. Such predeployment training would prepare military personnel better for deployment operations.

Making the Case for Sustainability

Sustainability has become something of a buzzword, but it has real implications for enhancing military mission effectiveness. In this context, *sustainability* may be defined as "using processes that are non-polluting, conserving of energy and natural resources, economically efficient, [and] safe and healthful for workers."¹⁶ FOBs have become an important feature in the U.S. expeditionary warfighting strategy. Contingency bases in deployed environments vary in size, mission, and duration, but all require significant logistics to supply water, fuel, and food, as well as to remove waste. For example, a 600-soldier FOB requires a convoy of 22 trucks per day just to supply fuel and water and haul away wastewater and solid waste.¹⁷ The costs to supply the FOBs are not only dollars and manpower, but also the risk of attack against convoy personnel. There remains an urgent need to improve FOB sustainability to reduce the need to convoy supplies in and the waste out.

Although official military doctrine specifies that bottled drinking water be used as a last resort, it is in reality the primary source of drinking water at many FOBs. There is a perception that bottled water is safer, easier to pack and carry on missions, and more easily distributed during humanitarian missions. However, delivering bottled water is expensive, dangerous, and creates a major source of solid waste. An estimated half of the water bottles are discarded even before they are used because of torn shrink-wrap packaging or expired shelf lives.¹⁸ If not hauled out of the FOB, the waste must be disposed of on-site. Many times, on-site solid waste disposal is accomplished via burn pits. As mentioned, burn pits are not viable long-term alternatives

to waste treatment. However, there are alternatives to relying on bottled drinking water. As long as local water sources meet purity and quantity requirements, military units may use reverse osmosis water purification units, tactical water purification systems, or lightweight purifiers. These technologies are proven to produce safe, potable drinking water and, if used more regularly, would reduce the need for bottled drinking water.

Fuel is another important commodity required at FOBs. In 2006, Major General Richard Zilmer, USMC, requested alternative energy sources such as solar panels and wind turbines for battlefield operations in Iraq. General Zilmer's memo noted that without renewable power, U.S. forces "will remain unnecessarily exposed" and will "continue to accrue preventable . . . serious and grave

Command locations. Power production at these deployed sites often exceeds demand, wasting a significant amount of fuel. For instance, Camp Leatherneck only required 5 megawatts of power but was generating 19 megawatts with 196 generators running at 30 percent capacity and consuming over 15,000 gallons of fuel per day.²³ More judicious use of generators could reduce the consumption of precious fuel.

Conclusions

Regulations intended to protect the environment have implications beyond just complying with written mandates. Indeed, planning for environmental conditions and protection at the beginning of a deployment benefits troop health and safety. Employing sustainable practices in deployed operations

Camp Leatherneck only required 5 megawatts of power but was generating 19 megawatts and consuming over 15,000 gallons of fuel per day

casualties."¹⁹ Ashton Carter, Under Secretary of Defense for Acquisition, Technology, and Logistics, testified to Congress in 2009 that "protecting large fuel convoys imposes a huge burden on combat forces" and "reducing the fuel demand would move the department more towards an efficient force structure by enabling more combat forces supported by fewer logistics assets, reducing operating costs, and mitigating budget effects caused by fuel price volatility."²⁰ In 2008, the Army established an energy security strategy to reduce energy consumption and use alternative energy sources. The use of photovoltaic cells (solar power), at least on a small scale, holds promise in offsetting energy production needs.²¹ Alternative fuel production (for example, hydrotreated renewable oils) at FOBs has been proposed and pursued, at least in the research stage. However, these require a carbon-based feedstock that could be even more expensive than conventional fuels and do not offer a compelling military benefit.²² Rather, a more immediate solution may be more efficient generators and equipment to reduce FOB fuel needs. FOB structures, which typically lack insulation, are inefficient and require significant power to heat or cool. Energy audits are also being considered as a way to reduce energy consumption at more permanent facilities in deployed U.S. Central

helps reduce waste and costs both in funds and lives. Including environmental factors in planning and operations directly helps to ensure strategic and tactical mission success. Nevertheless, environmental considerations remain absent or delayed in many deployed military operations. There continues to be opportunity to improve environmental practices in these activities. **JFQ**

NOTES

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AIR ADVISING

A Critical Component of Joint Engagement

By NICOLE S. FINCH *and* PETER A. GARRETSON

Over the past few years, the U.S. Air Force has developed a scalable capability for air advising that is designed to enhance access, build relationships, and create partner capabilities that enable and create synergies for the joint force. This article discusses air advising, the future joint environment and the impetus for the creation of an air advisor capability, benefits of air advising for the joint force, standing air advising units, aviation enterprise development, the future of air advising in the joint force, and how the members of the joint community can engage and leverage the air advising capability.

Air advising is happening around the world. Kyrgyz firefighters learn coalition techniques for responding to airfield emer-

gencies. Iraqi pilots attend the international F-16 schoolhouse in Tucson, Arizona. U.S. Airmen in mobility support advisory squadrons (MSAS) spend a month with their compatriots in Honduras, exchanging information on everything from survival training to logistics to air traffic control. Each of these diverse activities includes a central strategic feature: long-term relationship-building for the purpose of advancing U.S. national interests. These partner nation security forces now have U.S. military contacts and affiliations to last them throughout their careers as they advance to positions of leadership. In turn, Airmen have done their best to prepare the

operational environment, first and foremost to reduce U.S. employments abroad and share the burden of necessary international action with partner nations, and also to provide global access to the U.S. joint force.

Air Advising Defined

Air advising is “the act of communicating professional knowledge and skills to partner nation personnel in order to improve their airpower capabilities. Air advising includes five basic activities: assessing, training, advising, assisting, and equipping.”¹ The Air Force assists partner nations by helping them develop, enhance,

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and sustain their *aviation enterprises*, defined as “the sum total of all air domain resources, processes, and culture, including personnel, equipment, infrastructure, operations, sustainment, and airmindedness.”²

Air advising is a critical component of the Air Force response to direction in Department of Defense (DOD) Instruction 5000.58, “Security Force Assistance” (SFA), which instructs the military Services, among other things, to:

- support DOD efforts to organize, train, equip, and advise foreign military forces
- provide scalable capabilities to meet the requirements of SFA activities
- develop military department Service-specific strategy for SFA capabilities.

Future Joint Environment and Impetus for Air Advising

U.S. leaders have directed the military to focus on more efficient means to achieve security and stability, teaching that we can get the most “bang for the buck” by preventing the types of conflicts overseas that can affect us within our borders or require U.S. intervention abroad. To achieve the endstates in this national-level guidance, DOD and the Chairman of the Joint Chiefs of Staff have issued directives and instructions for security force assistance, counterinsurgency, stability operations, and irregular warfare. The Air Force vision is to employ a strategy of developing and enhancing partner nations’ respective aviation enterprises via air advising as part of targeted security force assistance. Over the past few years, the Air Force has developed a scalable capability for air advising designed to enhance access, build relationships, and create partner capabilities to enable and create synergies for the joint force.

Benefits for the Joint Force

The dynamics of the international environment mean we cannot plan the specifics of future joint force employment with certainty, but we do know that whenever U.S. forces are employed abroad, they will need appropriate support elements and force multipliers. For American forces to be timely and effective, they often need to be air mobile, arriving via an aerial port of debarkation (APOD). The joint force has the option of using airpower combined with indigenous forces to achieve certain military and politi-

cal endstates without placing U.S. surface forces at risk, thus providing a wider range of options. Therefore, both airpower and surface operations benefit from more capable partners. Successful deployment and employment require the cooperation of partners who can provide APODs in various regions of the world, who can provide aviation support in mobility and intelligence, surveillance, and reconnaissance (ISR) missions, and who are capable of operating with U.S. forces. Air advising provides our partners with the capability and professionalism to perform such missions as ISR and moving land forces, whether working alone, with regional partners, or in concert with U.S. joint forces and interagency organizations.

to withstand internal threats and external aggression. However, advancing a partner nation’s aviation enterprise also typically advances that partner’s dual-use aviation capabilities, serving larger U.S. development goals. While air advising could span the full spectrum of partner air forces, the capability that the Air Force is expanding is aimed principally at developing nations with underdeveloped aviation enterprises. Therefore, the Service anticipates that it will be part of a team with other government agencies, such as the Federal Aviation Administration, U.S. Agency for International Development, Department of Commerce, and Department of State, which will handle other aspects of civilian and military aviation development

the Air Force vision is developing and enhancing partner nations’ aviation enterprises via air advising as part of targeted security force assistance

Air advising benefits the joint force in four specific ways: prevention, burden-sharing, legitimacy, and access. Air advising has the potential to reduce U.S. employments abroad while increasing compatibility and interoperability for coalition and allied operations, leading to more opportunities for burden-sharing with other nations when future conflicts arise. A rising tide lifts all boats, so to speak, when it comes to aviation enterprise development: what helps our partner nations helps us. Building professionalism in partner air forces, as well as improving their overall infrastructures, helps lead to the legitimacy of partner nation governments within their own borders. Air advising also opens the door for access to and shaping of nonpartner nations, either holding up our partner nations as examples for others to emulate, or via our partners advising other neighbors who may not be as anxious for a U.S. presence on their soil or our involvement in their affairs.

Air advising assists the joint force and the Nation in reaching desired defense and security goals in multiple ways. From the beginning, Airmen consider joint and interagency needs and synergies. Air Force air advising is executed in concert with the other military Services and other governmental organizations. For example, military engagements will necessarily be focused on building the capacity and capability of partner nations

as part of a larger, whole-of-government-planned effort. The Air Force will also cooperate with international organizations such as the International Civil Aviation Organization, International Air Transport Association, and various financing organizations such as, for example, the World Bank, International Monetary Fund, Millennium Challenge Corporation, and Asian Development Bank.³ Such civil-military relationships may be established through the U.S. Embassy Country Team in each partner nation as well as through interagency organizations within the national capital region and elsewhere.⁴

Standing Units in Special Operations and General Purpose Forces

Air advising takes a variety of forms. Current examples include Airmen deployed to Iraq and Afghanistan who advise on a full-time basis. Some Airmen assigned in partner nations as part of security cooperation organizations within U.S. Embassies may perform air advising on a part-time basis. Some base-level maintenance personnel and aircrew may perform air advising activities routinely, as members of mobile training teams, to partner nations or during exercises and personnel exchanges with partner nation personnel.⁵ The standing units of execution, education, and training for air advising in the Air Force are 6th Special Operations Squadron (6 SOS), two mobility support aviation squadrons in

the general purpose forces (GPF) that provide an expeditionary capability, and the Air Advisor Academy (AAA), which provides education and training for air advisors assigned to the MSAS as well as predeployment training.

6th Special Operations Squadron.

While air advising and aviation enterprise development are becoming more prominent in Air Force strategy, the Service has performed these roles since its inception. The

Although only established in 2011, the squadrons have already been successful in their first engagements. In April 2012, 571 MSAS participated in an information exchange with the Honduran air force, which was described by participants as “a success from every aspect.” During this engagement, 15 members of the 571 MSAS demonstrated a capability to conduct seminars in airbase defense, aircraft maintenance, aircrew safety, aircrew survival, air

advisory capability for steady-state protracted IW requirements to complement existing special operations force advisory capabilities.” The strategy directed the creation of “an aviation advisor schoolhouse, which will preserve the hard-won experience gleaned from current efforts to stand up the Iraqi Air Force and the Afghan Air Force.”⁹

The AAA mission, as described in its April 2010 charter, is “to provide a rigorous, relevant, and flexible continuum of education and training to Airmen so they are capable of applying their aviation expertise to assess, train/educate, advise, assist, and equip partner nations in the development and application of their aviation resources to meet their national needs in support of all security cooperation activities.” It combines the core air advisor skills with language, region, and culture instruction, as well as fieldcraft skills to Airmen of all ranks.¹⁰ Depending on mission requirements, courses, which start almost every week, can range between 1 and 4 weeks in duration. Longer courses meet U.S. Central Command theater-entry requirements, counterinsurgency training standards, and security force assistance training standards. The AAA was initially focused on training personnel deploying to Iraq and Afghanistan but has now expanded its scope to support global requirements for air advisors. It reached its initial operational capability in July 2012, and will eventually have a throughput of up to 1,500 students per year.

Aviation Enterprise Development

Many in the joint force understandably care about partner air capabilities to support land forces and combined air-land operations. But aviation does not begin and end at close air support, and a partner nation cannot have aviation operations until it has developed an aviation infrastructure. Aviation enterprise development is an Air Force-led initiative to engage with less capable partner nations to build aviation capabilities, capacities, and institutions and to strengthen the U.S. global defense posture. The aviation enterprise development initiative begins with guidance from the President, Secretary of Defense, and Joint Staff to make thoughtful choices supporting partnership-building to achieve desirable foreign policy effects in peacetime. *Airpower capabilities* include “all air, space, and cyberspace capa-

a partner nation cannot have aviation operations until it has developed an aviation infrastructure

oldest organization dedicated to air advising is Air Force Special Operations Command 6 SOS, which was established as a squadron in 1994 but with lineage dating back to 1944.⁶ These combat aviation advisors (CAAs) do not conduct initial qualification training. Moreover, their core mission is not to develop a partner nation's broader aviation enterprise. Instead, CAAs specialize in training foreign forces in advanced or tactical employment of aviation resources operated by the partner nation—often equipment and aircraft produced by the former Soviet Union.⁷ Combat aviation advisors from 6 SOS have been working over the past decade to increase the aviation counterinsurgency capability and capacity in both Iraq and Afghanistan. Their efforts have been so successful that Congress mandated that 6 SOS double in size in 2006 and again in 2010. Meanwhile, DOD asserted the importance of institutionalizing similar capabilities in the GPF so special operations forces can remain “special” while the GPF responds to a broader mission set.

Mobility Support Aviation Squadrons. Since 2008, the Air Force has been working to achieve a capability similar to that of 6 SOS within the GPF. Toward this end, and drawing on lessons learned by Air Force Special Operations Command combat aviation advisors, the Air Force established 571 and 818 MSAS. While the MSAS are trained and able to support any country, the Air Force has chosen to create each squadron as a regionally aligned force: 571 MSAS is aligned to support U.S. Southern Command and 818 MSAS is aligned to support U.S. Africa Command, allowing these commands to build long-term relationships with partner nations.

traffic control, communications, generator maintenance, and fuels assessment. Commensurate with the Air Force commitment to increase language and culture skills, the ability of many members of this unique squadron to speak Spanish improved the engagement, and the after-action report recommended more language training for all squadron members. The 818 MSAS has participated in engagements in Africa including the March 2012 African Partnership Flight, a 2-week military-to-military multilateral and regional engagement event in Ghana. In this multilateral engagement, the 818 MSAS demonstrated its capability to conduct classroom instruction including such courses as cargo preparation, search and rescue, airfield security, public affairs, flight and ground safety, aerospace physiology, and fixed-wing aircraft maintenance. In addition to imparting knowledge, these activities opened the door for truly lasting partnerships.

Air Advisor Academy. An air advisor is not entirely born or made. Air advising begins with a certain type of individual—not everyone is cut out for the job. Just as a good aviator does not necessarily make a good instructor, a good instructor does not necessarily make a good advisor. The successful air advisor empathizes with the partner's situation, feelings, and motives and has enough patience to adapt to the slow process of partner nation improvement.⁸ Once identified, the air advisor, preferably with these basic personality traits, attends training at the Air Advisor Academy to learn the tools of the air advising trade.

The AAA was officially established in May 2012 to fulfill the 2009 Air Force Irregular Warfare (IW) Strategy's goal of establishing “a permanent general purpose force . . .



U.S. Air Force (Lesley Waters)

Air traffic controller and air advisor review arrival-runway separation procedures with Honduran military air traffic controllers

bilities germane to a given engagement with a partner nation.”¹¹ For some partner nations, air advising must begin with the development of the aviation enterprise—that is, having the ability to consistently get even the simplest aircraft into the sky—before it can move on to the major capabilities typically associated with Air Force operations.

To meet that challenge, 571 and 818 MSAS assess, train, and advise partner nation air forces in those critical agile combat support activities (command and control, communications, air operations, aerial port, aircraft maintenance, aeromedical evacuation, and support functions) that assist in aviation enterprise development and open the door to economic development and future aviation operations. A nation with little or no aviation enterprise would then move on to developing mobility capabilities, providing more operational reach over wide expanses of ungoverned or undergoverned territory, reducing the space

and safe havens beyond state reach that provide the freedom of action sought by insurgents, extremists, criminals, and terrorists. The same light aircraft initially used for mobility operations can then be modified to perform ISR and strike operations.

The overall goal of aviation enterprise development is for a nation’s airpower capabilities to be “employed, supported, and integrated into the larger context of the partner nation’s national security strategy” and the geographic combatant command’s theater campaign plan.¹² An important part of a functional aviation enterprise is aerospace-enabled governance. Mobility, ISR, and strike capabilities are critical to a nation’s internal stability and legitimacy and are interactive and mutually supportive of the less visible comprehensive, whole-of-government, and military-civil interaction and interoperability that likewise allows the functioning area of a state to expand. The Air Force incorporates the whole-of-aviation enterprise in its

approach, from initial assessment of a partner nation to planning, execution, and lessons learned, with the end goal of empowering the partner nation to extend its state reach through aerospace-enabled governance.

Development Planning

The Air Force has an exceptional system to service the needs of near-peers who can afford the type of advanced aircraft that provide the United States with air superiority. These near-peers already have a well-developed aviation enterprise and a history of aviation professionalism, and they are interoperable with U.S. capabilities. The Air Force is increasing its emphasis on GPF air advisors, who fill a vital niche and service critical security cooperation partners with nascent or even nonexistent aviation enterprises. These advisors assess the partner nation’s ability to meet its goals, along with U.S. desired security endstates, and formulate a plan to help the nation reach those goals and endstates.

Air advising absorbs critical lessons learned from previous attempts to partner with nations with less-developed aviation enterprises. Failure to fully develop the “back-end” of aviation through advising efforts has many times resulted in delivering inappropriate equipment to partner nations, and sometimes even in airframes “rotting on the ramp”: expensive aircraft sitting unused because they lack operators, maintainers, and spare parts. These failed partnership efforts yield no increased partner capability for self-defense, diminish the treasuries of both nations, and are outcomes that the Air Force seeks to avoid in its shaping of the operational environment. To do the job right, the Air Force is in the process of developing a deliberate planning system intent on building long-term partnerships and coming to an understanding of what the partner nation actually needs, not just what may bring prestige or sales to the United States.

Guidance

Although Air Force personnel have been involved in air advising activities for many years, there has been a lack of an “overarching framework that guides and integrates all of these efforts towards the common goal of meeting geographic combatant commander . . . requirements.”¹³ Until recently, air advisors relied on common sense and the experience of predecessors to get the job done, and they have done a commendable job. But to truly institutionalize the air advising mission, the Air Force has developed guidance that preserves the lessons learned over the past 10 years in Iraq and Afghanistan, as well as those from the decades before the 9/11 era. Air advising is now addressed through the following:

- Air Advising Operating Concept and associated Air Force Tactics, Techniques, and Procedures (AFTTP) 3-4.5, *Air Advising*
- Irregular Warfare Operations Roadmap
- Air Component Campaign Support Plan.

The Air Advising Operating Concept was published in February 2012 and lays out the capabilities for performing air advising, as well as the sequenced steps for air advising activities. The concept proclaims that “air advising is a long-term activity undertaken in partnership with the U.S. Government



U.S. Air Force advisor shows Afghan airmen proper way to take temperature reading of fuel sample

U.S. Air Force (Nadine Barclay)

Country Team, joint force, and partner nation government and military,” and that it cannot consist simply of selling or giving a partner nation equipment and then leaving. The goal of improving a partner nation’s aviation enterprise starts long before any equipment is procured or delivered and continues after any equipment is fielded.

Members of the joint force who want to learn more about air advising can reference AFTTP 3-4.5, *Air Advising*, published in July 2012. The publication takes an even more detailed look at how to perform air advising including the principles and skills of air advisors, the role of culture in air advising, logistical support for air advisors, and step-by-step mission execution. The AFTTP is an invaluable handbook for air advisors, capturing lessons learned that previously did not exist. The Irregular Warfare Operations Roadmap provides the blueprint for integrating GPF and special operations forces and seeks to create the systems that support coherent air advising capability. The Air Component Campaign Support Plan is the document in which air components of the geographic combatant commands will lay out how air advising activities support command endstates and the theater security cooperation plan.

Future of Air Advising in the Joint Force

Air advising can be pursued both jointly with other Services and through the

total force including Active-duty, Reserve, and Air National Guard Airmen, as well as Department of the Air Force civilians. A current example of joint air advising is Air Force–Army rotary-wing advising. An example of total force air advising is Air National Guard participation in the National Guard Bureau’s State Partnership Program. Joint special operations and Air Force GPF also work together in air advising.

Joint advocacy is vital to air advising. It is important for surface components to articulate their air advising requirements through their geographic combatant commands and the integrated priority list process to help the Air Force better support those needs. While some Air Force parties believe their Service could more effectively partner and train with developing partner nations if it maintained smaller, more affordable aircraft in its own inventory, the demand signal was not clear enough to support the requirement in the current fiscal climate. For example, light mobility and light attack/armed reconnaissance aircraft were programmed to diversify the Air Force’s air advising capability beyond agile combat support. These light aircraft were designed to be transferrable, affordable, modular, and interoperable. The program was a victim of defense budget cuts, but the Air Force is still within a time period where it could easily restart the program office with a simple and relatively small infusion of resources—if the strategic case could be made for how it sets conditions favorable to

U.S. interests and the Department decided it should be an area of investment.

How the Joint Force Can Engage

The key entry point for engaging Air Force air advising capabilities is through the geographic combatant command air component staff planning organizations. These bodies develop the individual Air Force country plans for partner nations in their respective areas of responsibility and the overall Air Component Campaign Support Plan, which details all planned security cooperation engagements for the theater. All of these plans are in direct support of the command's theater campaign plans. The joint force has a number of tools to help get even better leverage from air advisors. Through the Global Force Management process, combatant commands can request scalable, tailorable air advising units for their planned security cooperation activities. Commands also produce annual integrated priority lists that

traveling to this country regularly for the past 2 years and has built personal relationships. Although the bilateral relationship was tentative at first, this Airman and other members of his squadron have built trust through a process of working within the partner nation's needs and budget and providing appropriate, affordable solutions rather than following a one-size-fits-all checklist developed with a Western point of view. Over time, the partner nation has made sustainable progress, developing both military and civilian resources and following international best practices for aviation. It has gained control of its undergoverned areas, won legitimacy in the eyes of the population, and made positive economic strides. The United States has gained an ally in the region with the infrastructure and inclination to allow U.S. joint access and basing in the event of a future contingency. Such are the outcomes that air advising seeks to advance.

capabilities as part of a coherent national effort supporting the enterprise.

Airmen are already engaged in air advising around the world every day and are helping partner nations develop their aviation enterprises and improve their political, military, and economic stability and security. However, the Air Force can deliver even more positive foreign policy outcomes and further support the national security goals articulated in the Guidance for Employment of the Force, the Strategic Defense Guidance, and the National Security Strategy. The Service will lead in preventing, shaping, and gaining access through the air advising function it is developing for the joint force. **JFQ**

NOTES

¹ U.S. Department of the Air Force, "Air Advising Operating Concept," Department of the Air Force, February 10, 2012, 6.

² Ibid., 8.

³ Ibid.

⁴ Ibid., 9.

⁵ Ibid., 10.

⁶ U.S. Air Force, 1st Special Operations Wing, 6th Special Operations Squadron Fact Sheet, February 24, 2011, available at <www2.hurlburt.af.mil/library/factsheets/factsheet.asp?id=3496>.

⁷ Richard L. Ingram, *Aviation Security Force Assistance: A 21st Century Imperative* (Carlisle, PA: U.S. Army War College, 2012), 13–14.

⁸ Air Force Tactics, Techniques, and Procedures 3–4.5, *Air Advising* (Fort Dix, NJ: U.S. Air Force Expeditionary Center, July 2012).

⁹ U.S. Air Force, "The 21st Century Air Force: Irregular Warfare Strategy," Department of the Air Force, January 2009.

¹⁰ Air Education and Training Command, "Air Advisor Education and Training Program," Air Advisor Academy Mission Briefing, July 2012.

¹¹ "Air Advising Operating Concept," 6.

¹² Ibid., 21.

¹³ Ibid., 5.

¹⁴ Ibid.

combatant commands can request scalable, tailorable air advising units for their planned security cooperation activities

are used during the Air Force budget submission process to help direct resources to match combatant commander needs. Combatant commands can also use the air components in their normal planning processes. The two existing MSAS have the capability to perform air advising anywhere in the world, but with a fully developed demand signal, the Air Force can begin to program for more air advising units similarly aligned with other geographic regions and prepared for long-term engagements with our regional partners.

The Air Force supports air advising based on the Guidance for Employment of the Force and the National Defense Strategy. These documents provide guidance to assist fragile or vulnerable partners in withstanding internal threats and external aggression and dictate the priority of building capability and capacity to particular partner nations.¹⁴

Conclusion

Imagine this scenario: A U.S. Airman deploys to a partner nation for a month to assess that nation's progress in developing its aviation enterprise. He arrives to a hearty welcome by his partner air force counterparts largely because he has been

The U.S. Air Force is committed to providing air advising capability to the joint force. It seeks to proactively shape the environment by empowering partner nations to see to their own security and improve access and influence for the United States. Responding to national direction to "develop innovative, low-cost, and small-footprint approaches to achieve our security objectives," the Air Force has developed and is expanding an air advising capability available to the combatant commands via the mobility support advisory squadrons and the 6 SOS, with a well-trained force through its Air Advisor Academy. The key activities of air advising—assess, train, advise, assist, and equip—are addressed in the guidance contained in the Air Advising Operating Concept. The key components of this concept are the permanent, professionally trained units that train and educate in the AAA and execute air advising in the special operations and general purpose forces. The Irregular Warfare Operations Roadmap aims for an integrated force of general purpose and special operations Airmen deliberately organized, trained, equipped, educated, and sustained to analyze irregular environments and present tailored



Coalition forces offload from U.S. Army Chinook during Operation Torii

U.S. Air Force (Jeremy T. Lock)

Tora Bora Reconsidered

LESSONS FROM 125 YEARS OF STRATEGIC MANHUNTS

By BENJAMIN RUNKLE

Dr. Benjamin Runkle is a Veteran of Operation Iraqi Freedom, former Department of Defense and National Security Council Official, and author of *Wanted Dead or Alive: Manhunts from Geronimo to Bin Laden* (Palgrave Macmillan, 2011).

Prior to the raid on Abbottabad, Pakistan, in May 2011, the seminal event in the 13-year hunt for Osama bin Laden was the operation to capture or kill the Saudi terrorist at Tora Bora in December 2001. Although the operation started with great anticipation due to reports that bin Laden and al Qaeda's senior leadership were surrounded in a remote mountain fortress, anticipation turned to frustration as bin Laden's fate remained uncertain after 2 weeks of intense bombing, and frustration turned to recriminations when bin Laden

appeared alive on a videotape on December 27. Unfortunately, much of the debate on this operation has been marked by partisan finger-pointing and bureaucratic score-settling, generating more heat than light and doing future U.S. commanders and policymakers a grave disservice.

But the killing of bin Laden allows for more measured analysis of what went wrong in the hunt for the al Qaeda leader than was possible while he remained on the run. This analysis is important, as the operational problems posed by strategic manhunts remain relevant given the continued pursuit

of Ayman al-Zawahiri and other al Qaeda leaders, as well as the ongoing hunt for Lord's Resistance Army commander Joseph Kony by U.S. special operations forces (SOF) and our Ugandan allies.

This article analyzes the failure to capture or kill bin Laden at Tora Bora in the context of the broader history of strategic manhunts. Starting with the 16-month Geronimo Campaign in 1885–1886, the United States has deployed forces abroad a dozen times with the operational objective of apprehending—dead or alive—one man. The lessons learned from these historical campaigns offer a fuller perspective of the challenges posed by such operations, and especially the hunt for bin Laden in December 2001. In particular, history suggests that the number of troops deployed has little effect on whether an individual is successfully targeted, and that the conventional wisdom that bin Laden escaped from Tora Bora because there were too few U.S. troops present is a canard contradicted by 125 years of strategic manhunts.

The Tora Bora Operation

After the Taliban's hold on Afghanistan began to disintegrate in the face of the U.S. air campaign and the Northern Alliance's ground assault in mid-November 2001, bin Laden and al Qaeda's fighters fled southeast from Jalalabad toward the Pakistan border. Their destination was Tora Bora (Pashto for "black dust"), a series of cave-filled valleys in the White Mountains where ridgelines rose from wooded foothills to jagged, snow-covered peaks separated by deep ravines. The Tora Bora complex covered an area roughly 6 miles wide and 6 miles long and had withstood numerous Soviet offensives in the 1980s. Moreover, bin Laden was intimately familiar with the terrain. In 1987, he used bulldozers from his family's construction company to build a road through the mountains and later fought his first battle against the Soviets at the nearby village of Jaji. During the years before September 11, bin Laden kept a house in a settlement near Tora Bora and routinely led his children on hikes from Tora Bora into the Parachinar region of Pakistan that juts into Afghanistan on the southern slope of Tora Bora. Thus, Tora Bora afforded bin Laden the option of fighting or fleeing.

Elements of the Central Intelligence Agency (CIA) paramilitary team codenamed

Jawbreaker established a command center in a schoolhouse in the foothills near Tora Bora. Satellite imagery and photographs from reconnaissance planes showed deep snow stacking up in the valleys and passes, leading the team to conclude that bin Laden would not be able to leave the mountains any time soon. Consequently, the plan for Tora Bora closely resembled the operations that had broken the Taliban lines north of Kabul: CIA paramilitary operatives and U.S. SOF would infiltrate the area to identify targets for bombing, which would clear the way for Afghan militias to advance. However, the Northern Alliance had neither the capacity nor the desire to push as far south as Jalalabad. Consequently, team leader Gary Berntsen was forced to rely on local warlords. One was Hazaret Ali, a Pashai tribal leader who had distinguished himself as a field commander in the war against the Soviets, and the other was Haji Zaman, a recently returned exile whose base of operations during the anti-Soviet jihad had been Tora Bora but who was a fierce rival of Ali's.

By December 4, the first observation post was established on a mountaintop overlooking the Milewa Valley, and over the next 3 days about 700,000 pounds of ordnance were dropped on al Qaeda positions. On December 9, a 40-man detachment arrived at the base of Tora Bora. Under the command of a major who would later publish a memoir under the pseudonym "Dalton

On December 16, numerous reports of genuine surrenders came into the schoolhouse, and by the next day, the battle of Tora Bora was over. Estimates of al Qaeda fighters killed ranged from 220 to 500, although the real number was likely higher as the bombing literally obliterated or buried the bodies of large groups of fighters. Fifty-two fighters, mostly Arabs, were captured by the Afghans, and another hundred were captured crossing the border into Pakistan. Yet there was no sign of the campaign's target. Bin Laden's fate remained unknown until December 27, when he appeared on videotape. Despite being left-handed and typically gesturing with both hands while speaking, a visibly aged bin Laden did not move his entire left side in the 34-minute video, suggesting he had sustained a serious injury during the battle.

"I am a poor slave of God," he said resignedly. "If I live or die the war will continue."¹ The hunt for bin Laden would last for almost another decade until it reached its climax on a cloudless night in a quiet neighborhood in Abbottabad.

Not Enough Boots on the Ground?

The most persistent criticism of the bin Laden manhunt as executed at Tora Bora is that the Bush administration failed to deploy enough U.S. troops and thereby let bin Laden escape certain capture or death. On December 3, 2001, CIA team leader Gary Berntsen sent a request to the agency's

history suggests that the number of troops deployed has little effect on whether an individual is successfully targeted

Fury," the operators were supplemented by 14 Green Berets, 6 operatives, a few Air Force specialists, and a dozen British commandos. The bombardment—which included over 1,000 precision-guided munitions and a 15,000-pound BLU-82 "Daisy Cutter" bomb—continued for another week, and on at least two occasions directly targeted bin Laden. Although SOF could hear the frantic, anguished cries of the al Qaeda operatives via a captured radio, the Afghan militias withdrew each night from the ground gained during the day in order to break their Ramadan fast. Haji Zaman further complicated the siege by opening surrender negotiations with al Qaeda that were likely a stalling tactic for the terrorists to escape.

headquarters asking to assault the cave complexes at Tora Bora and block escape routes. He also appealed directly to the head of U.S. Central Command (USCENTCOM) SOF during a meeting in Kabul on December 15. Similarly, Brigadier General James Mattis, commander of the Marines in Afghanistan, reportedly asked to send the 1,200 Marines stationed near Kandahar into Tora Bora. But USCENTCOM denied all requests for more troops. Consequently, as Peter Bergen concluded, "there were more American journalists at the battle of Tora Bora than there were U.S. soldiers."²

USCENTCOM commanders cited three broad arguments for why troop levels were kept so low during the operation. First,

former Deputy Commander of USCENTCOM Lieutenant General Mike DeLong argued, “The simple fact is, we couldn’t put a large number of our troops on the ground [at Tora Bora].”³ The roads from Jalalabad to Tora Bora were horrible and ran through villages loyal to the Taliban and al Qaeda, making the stealthy or efficient deployment of large numbers of U.S. troops improbable. Moreover, the weather conditions at Tora Bora’s high altitudes and the lack of potential landing or drop zones for air insertion and resupply would have made such a mission dangerously unpredictable and logistically unprecedented.

Second, USCENTCOM Commander General Tommy Franks later explained: “I was very mindful of the Soviet experience of more than ten years, having introduced

was kept on the sidelines,” while “bin Laden and an entourage of bodyguards walked unmolested out of Tora Bora and disappeared into Pakistan’s unregulated tribal area.”⁶ Bergen similarly concluded, “The Pentagon’s reluctance to commit more American boots on the ground is a decision that historians are not likely to judge kindly.”⁷ Even former Bush administration defense official Joseph Collins noted, “It was the lack of expert infantry that allowed Osama bin Laden to escape at Tora Bora.”⁸

Yet even where USCENTCOM’s logic is questionable, the history of strategic manhunts suggests that a larger U.S. ground force would *not* have significantly increased the chances of capturing bin Laden at Tora Bora, as additional troops have never been a guarantor of success in similar campaigns.

it would have taken 9,000 to 15,000 U.S. troops to completely cordon off the 100 to 150 potential escape routes out of Tora Bora

620,000 troops into Afghanistan.”⁴ USCENTCOM believed that the deployment of large-scale U.S. forces would inevitably lead to conflict with Afghan villagers and alienate our Afghan allies. Both Ali and Zaman had made it clear that eastern Afghans would not fight alongside the American infidels, and Major Fury was “convinced that many of Ali’s fighters, as well as those of his subordinate commanders such as Zaman and Haji Zahir, would have resisted the marines’ presence and possibly even have turned their weapons on the larger American force.”⁵

Finally, General Franks firmly believed that the light-footprint approach—U.S. airpower supporting indigenous ground forces—had already succeeded in overthrowing the Taliban and would succeed in Tora Bora too. Franks was concerned that taking the time to introduce significant numbers of U.S. ground forces would disrupt the momentum of the coalition-Afghan offensive, thereby giving bin Laden a chance to slip away.

In the ensuing decade, a conventional wisdom regarding the operation has formed. The Democratic staff of the Senate Foreign Relations Committee argued in a 2009 report that “The vast array of American military power, from sniper teams to the most mobile divisions of the Marine Corps and the Army,

For example, the 1916 Punitive Expedition to apprehend Pancho Villa deployed twice as many troops as the 1885–1886 Geronimo Campaign used operating over the same terrain in northern Mexico—11,000 versus 5,000. Yet it was the earlier, smaller campaign that was successful. Similarly, both Operation *Just Cause* to arrest Panamanian strongman Manuel Noriega and the United Nations operation in Somalia targeting warlord Mohammad Farah Aideed involved approximately 20,000 troops pursuing individuals in urban environments. Yet the former succeeded in capturing Noriega while the latter failed to capture Aideed. And in 1967, 16 American Green Berets trained the 200 Bolivian rangers who captured (and later executed) Che Guevara. Thus, it is clear that some variable other than troop strength explains the difference between success and failure in past manhunting campaigns.

In reality, because of the need for operational surprise, smaller is often better in strategic manhunts. In 1886, when General Nelson A. Miles ordered Lieutenant Charles Gatewood not to go near the hostile Chiricahua Apaches with fewer than 25 soldiers, Gatewood disobeyed, later recalling: “Hell, I couldn’t get anywhere near Geronimo with twenty-five soldiers.”⁹ One Marine officer serving in the 1927–1932 hunt for Nicaraguan

insurgent leader Augusto Sandino noted, “Large bodies of troops had not the mobility necessary to overtake bandit groups and force them to decisive action.”¹⁰ The initial plan to capture Mohammad Farah Aideed in June 1993, codenamed Caustic Brimstone, called for a small force of 50 operators to be deployed to Mogadishu to capture the clan leader. And a raiding force was eschewed altogether on June 7, 2006, for fear it would tip off Abu Musab al-Zarqawi’s lookouts, leading to the F-16 strike that killed the al Qaeda in Iraq leader.

Beyond historical considerations, the specific conditions at Tora Bora undermine the conventional wisdom regarding inadequate troop strength. In an early December meeting at the White House, President George W. Bush asked Hank Crumpton, the CIA official heading the agency’s Afghan campaign, whether the Pakistanis could seal their side of the border during the Tora Bora operations. “No sir,” Crumpton said. “*No one has enough troops to prevent any possibility of escape in a region like that.*”¹¹ Indeed, if we apply the planners of March 2002’s Operation *Anaconda* assumption that between 90 and 100 troops were required to block each pass out of comparable terrain in the Shah-i-Kot Valley, then it would have taken 9,000 to 15,000 U.S. troops to completely cordon off the 100 to 150 potential escape routes out of Tora Bora, a number that was logistically impossible to deploy there in December 2001. Moreover, Major Fury noted that “We had to operate in virtual invisibility to keep Ali on top of the Afghan forces,” and that “It would have been a major slap in Ali’s face” had thousands of Rangers and Marines shown up. If the Afghan militias “didn’t turn on [U.S. forces] then they definitely would have gone home.”¹²

Two historical operations conducted over the same terrain provide counterfactuals that refute this conventional wisdom. In March 2002, 3 months after bin Laden escaped from Tora Bora, roughly 2,000 U.S. troops from 10th Mountain and 101st Infantry divisions, in addition to SOF and U.S.-trained Afghan allies, were deployed to the Shah-i-Kot Valley in eastern Afghanistan to trap several hundred al Qaeda fighters and a suspected senior leader. But as Sean Naylor notes in *Not a Good Day to Die*, “At least as many al-Qaeda fighters escaped the Shahikot as died there,” despite the reliance upon thousands of U.S. conventional



U.S. Air Force (Francisco V. Govea II)

Soldiers fire at targets on Tora Ghar mountains from Luy Kariz, Afghanistan

troops.¹³ And whereas the Bush administration has been faulted for not deploying an additional 800 to 3,000 troops, in the 1930s and 1940s the British hunted the Faqir of Ipi with 40,000 troops over similar terrain in Waziristan but never caught their prey. Thus, it appears troop strength was not the determining variable of success in the bin Laden manhunt.

The Role of Physical Terrain

A better argument for the failure to capture or kill bin Laden at Tora Bora lies in the terrain over which the operation was waged. Describing the difficult terrain, Major Fury told *60 Minutes* concerning attacking bin Laden's position there that on a scale of 1 to 10, "in my experience, it's a ten."¹⁴ Colonel John Mulholland, commander of 5th Special Forces Group in Afghanistan during Operation *Enduring Freedom*, noted, "there was no shortage of ways for [al Qaeda], especially for people who knew that area like the back of their hands, to continue to infiltrate or exfiltrate."¹⁵ Consequently, in 2008 CIA Director General Michael Hayden ascribed the failure

to capture or kill bin Laden to the "rugged and inaccessible" terrain of the border area.¹⁶

Physical terrain is obviously a factor in every military operation, whether a tank battle or SOF raid. Hence, it is true that terrain can play a role in any individual strategic manhunt. Marine officers in Nicaragua, for example, attributed Sandino's ability to elude his pursuers to the unique difficulties of fighting in the inhospitable terrain of Nicaragua's jungles. Similarly, then-USCENTCOM Commander General Joseph Hoar believed the odds were against capturing Aideed due to the warlord's ability to simply disappear into the narrow alleyways of Mogadishu. Yet despite these examples, U.S. forces have captured their quarry in mountains (Geronimo, Che), jungles (Emilio Aguinaldo, Charlemagne Peralt), and urban environments (Noriega, Pablo Escobar). Thus, it would be incorrect to say that any single type of terrain determines success or failure in a strategic manhunt.

Although the terrain of Tora Bora was undeniably a hindrance, it was not the decisive variable in the broader hunt for bin

Laden. Five hundred al Qaeda fighters were killed by U.S. forces at Tora Bora, and the terrain apparently did not save bin Laden from being wounded. During the first 3 years of the manhunt, 1998–2001, bin Laden was not hidden among mountains and caves, but rather lived openly in the plains around Kandahar. Moreover, since the 2007 advent of the "drone war" against al Qaeda in Pakistan's tribal areas, more than half of al Qaeda's top 20 senior leaders have been killed despite the forbidding terrain. Thus, the problem was not merely one of terrain masking bin Laden's movements, but rather of pinpointing his fixed location.

The Centrality of Human Terrain

More important than physical terrain is the *human terrain* over which a manhunt is conducted, which refers to the attitudes of the local population among which the target operates. These attitudes determine the availability of the three variables that historically have proven decisive to the outcomes of strategic manhunts: human intelligence, indigenous forces, and a border across which



U.S. and Canadian soldiers prepare to depart Bagram Air Base to Tora Bora, Operation *Mountain Lion*

the target can seek sanctuary. In the case of Tora Bora, each of these variables was slanted against U.S. forces, and it was the inhospitable *human* terrain around Tora Bora that led to the failure to apprehend bin Laden in December 2001.

Human Intelligence. Perhaps the clearest dividing line between successful strategic manhunts and failed campaigns is the ability to obtain actionable intelligence on the target either from the local population or sources within the target's network. Conversely, in every failed strategic manhunt, there has been a distinct inability to obtain intelligence on the targeted individual's movements or location from the local population. Whereas Mexican farmers tipped off the U.S. cavalry to Geronimo's location in August 1886, 30 years later General John J. Pershing complained, "If this campaign should eventually prove successful it will be without the real assistance of any natives this side of" the border. Unfortunately for Pershing, historian Herbert Mason notes, "Going into Chihuahua to lay hands on Villa was like the Sheriff of Nottingham entering Sherwood Forest expecting the peasants to help him land Robin Hood."¹⁷ Alternatively, Saddam Hussein, al-Zarqawi, and more recently Anwar al-Awlaki were successfully targeted

based on intelligence gained from captured members of their networks.

The hunt for bin Laden reinforces these lessons. Although the CIA was working eight separate Afghan tribal networks, and by the time of the September 11 attacks had more than 100 recruited sources inside Afghanistan, these assets could rarely predict where bin Laden would be on a given day. Despite several years of effort, the CIA was unable to recruit a single asset with access to bin Laden's inner circle. As a former senior U.S. counterterror official told Peter Bergen, an al Qaeda operative betraying bin Laden would be like "a Catholic giving up the Pope."¹⁸ The territory around Tora Bora was controlled by tribes hostile to the United States and sympathetic to al Qaeda. Villagers turned the places where al Qaeda fighters were buried into shrines honoring holy warriors fighting against the infidels. In the wake of the Taliban's collapse, the "Eastern Shura" became the principal political structure in the region, and its most influential leader was an aging warlord who had welcomed bin Laden at the airport in 1996 upon his return to Afghanistan from the Sudan. Bin Laden had been providing jobs and funding for residents since 1985 through the construction of the trenches, bunkers, and caves in the area.

Since moving back to the region, he had distributed money to practically every family in Nangarhar Province. Noted Milton Bearden, former CIA station chief in Islamabad, bin Laden "put a lot of money in a lot of the right places in Afghanistan."¹⁹

This practice continued after U.S. forces arrived in Afghanistan. At a November 10, 2001, banquet at the Islamic Studies Institute in Jalalabad, nearly 1,000 Afghan and Pakistani tribal leaders rose and shouted "*Zindibad, Osama!*" (Long live Osama!) without prompting. The tribal elders each received a white envelope full of Pakistani rupees, its thickness proportionate to the chief's importance, with leaders of larger clans receiving up to \$10,000. In exchange, the tribesmen promised to help smuggle Afghan and Arab leaders to freedom in Pakistan if escape became necessary. One leader later claimed his village escorted 600 people out of Tora Bora and into Pakistan, receiving between 500 and 5,000 rupees per fighter and family for the use of mules and Afghan guides.

Indigenous Forces. One way in which U.S. forces are able to develop human intelligence is through the use of indigenous forces. Apache and Filipino Macabebe scouts were critical to tracking down Geronimo and

capturing Aguinaldo, respectively. Similarly, it was the U.S.-trained and advised Bolivian Second Ranger Battalion and the Colombian police's "Search Bloc" who apprehended and killed Che and Pablo Escobar. Conversely, U.S. forces were unable to rely on indigenous forces in the unsuccessful hunts for Villa and Aideed.

After 9/11, it appeared the United States would be able to draw upon indigenous forces in its pursuit of bin Laden. Multiple sources suggested the majority of the Taliban opposed him and could possibly be recruited as allies in the manhunt. A Taliban official told a U.S. diplomat in Pakistan that "Taliban leader Mullah Omar is the key supporter of his continued presence in the country, while 80 percent of Taliban officials oppose it." Al Qaeda insider Abu Walid al-Masri later wrote that a "nucleus of opposition" developed among senior leaders of the Taliban who had urged that the Saudi be expelled prior to the September 11 attacks.²⁰ Immediately after September 11, an *ulema* of 1,000 Taliban mullahs formally petitioned Mullah Omar to have bin Laden expelled from Afghanistan to a Muslim country. As one analyst suggested prior to the start of Operation *Enduring Freedom*, "Informants might materialize in faction-ridden Afghanistan, where the extremist Taliban and its outside Arab allies such as bin Laden are much hated in some quarters."²¹

Thus, the United States was not obviously foolish in its choice of allies in the Eastern Alliance: Ali had been fighting with the Northern Alliance against the Taliban for several years, and Tora Bora had been Zaman's own base of operations during the Soviet war before the Taliban forced him into exile. Moreover, simply from a tactical standpoint, it was necessary to work with Afghan allies. As Major Fury observes: "To push forward unilaterally meant that we would be going it alone, without any [mujahideen] guides or security. Without a local guide's help in identifying friend from foe, we would have to treat anyone with a weapon as hostile."²² And after two decades of persistent war, almost everybody in Afghanistan carried a weapon.

Although the decision to rely on Ali and Zaman was defensible at the time, they turned out to be undependable allies. Ali insisted that the Eastern Shura had the final word on what should be done about the Arabs holed up in Tora Bora. He assigned a

commander named Ilyas Khel to guard the Pakistani border, but instead Khel acted as an escort for al Qaeda. "Our problem was that the Arabs had paid him more," one of Ali's top commanders later said. "So Ilyas Khel just showed the Arabs the way out of the country into Pakistan."²³ Zaman's men were from the local Khungani tribe, and many had been on bin Laden's payroll in recent months, hired to dig caves. "We might as well have been asking them to fight the Almighty Prophet Mohammed himself," Major Fury later concluded. "I am convinced that not a single one of our mujh fighters wanted to be recognized in their mosque as the man who killed Sheikh bin Laden."²⁴

Bilateral Assistance. There are two exceptions to the correlation between the use of indigenous forces and success in strategic manhunts. During the 5-year hunt for Sandino in Nicaragua, U.S. Marines trained and officered the Guardia Nacional, which spoke the language and understood Nicaragua's culture. Although the Guardia kept Sandino's insurgency in check through two elections, they and the Marines could never

the ISI paid lip service to U.S. counterterrorism goals, it simultaneously used bin Laden's training camps in Afghanistan to prepare its own allied extremist groups for attacks in Kashmir. CIA Director George Tenet concluded years later that "The Pakistanis always knew more than they were telling us, and they had been singularly uncooperative in helping us run these guys down. . . . That meant not cooperating with us in hunting down bin Laden and his organization."²⁵

In the wake of 9/11, the Bush administration delivered a set of ultimatums warning Pakistan that it was either an ally or enemy in the coming fight. Despite internal opposition, Pervez Musharraf agreed to the U.S. demands and, on his own initiative, even replaced the religiously conservative head of the ISI and his cronies on October 8. Part of Pakistan's responsibility was to intercept al Qaeda and Taliban fighters fleeing into Pakistan. This request from Washington came with little advanced warning, and Pakistan's tribal areas on the Afghan order had been off limits to the Pakistani army since independence. Consequently, the best Musharraf

in every failed strategic manhunt, there has been a distinct inability to obtain intelligence from the local population

capture Sandino, who was able to slip across the border into Honduras whenever things grew too tenuous in Nicaragua's northern departments. Conversely, U.S. forces did not have a comparable indigenous ally during Operation *Just Cause*, but were able to corner Noriega by cutting off his possible avenues of escape during the invasion's initial hours, whether they were his personal yachts and planes or the potential sanctuaries in sympathetic embassies in Panama City. These cases demonstrate the importance of foreign sanctuaries and bilateral assistance in denying safe haven in strategic manhunts.

Given bin Laden's ability to slip across the boundary between Afghanistan and Pakistan, a reliable partnership with Pakistan was critical for operational success. As with Mexico during the Punitive Expedition and Honduras during the Sandino affair, however, Pakistan proved an imperfect ally. Prior to 9/11, U.S. intelligence agencies had documented extensive links among Pakistan's Inter-Services Intelligence (ISI) directorate, the Taliban, and bin Laden. Although

could manage was to deploy 4,000 "Frontier Forces" to the border, although due to poor logistics these troops did not arrive until mid-December. At the same time, Musharraf rejected allowing U.S. forces into Pakistan in a combat role. Thus, although about a hundred al Qaeda fighters were captured fleeing Tora Bora into Pakistan, this avenue of escape was far from sealed.

In case after case historically, the attitudes of the local population (and by extension the availability and reliability of intelligence and indigenous forces) and neighboring countries proves to be a more important variable in strategic manhunts than troop strength. If the target is perceived as a hero or a "Robin Hood" figure, as the peasants of Northern Mexico and Nicaragua viewed Pancho Villa and Sandino, or as the Habr Gidr clan in Mogadishu viewed Aideed, the protection offered by the local population will thwart almost any number of troops or satellites. Conversely, if the target has committed acts that make him detested in his area of operations—as was the case



U.S., Canadian, and Afghan forces secure landing zone

with Geronimo, Che, Noriega, Pablo Escobar, Saddam, and al-Zarqawi—the lack of sanctuaries and available intelligence will prove decisive. Given the reverence with which Pashtuns in eastern Afghanistan viewed bin Laden in 2001, it is easy to see why an increased U.S. troop presence would not have been decisive.

This is a deeply unsatisfying conclusion for U.S. policymakers as it suggests that some variables critical to operational success are not controlled by U.S. commanders at the outset of a campaign. Instead, factors inherent to the individual and the cultural milieu in which they operate—variables beyond our control at the outset of a strategic manhunt—may be more important. This is frustrating to our modern, cable-driven political culture as it denies the opposition party and pundits an easy target for second-guessing and ridicule.

Yet if the initial raid or strike to capture or kill the targeted individual fails, policymakers must have the patience to allow U.S. commanders to conduct social network analysis of the targeted individual or to reshape the human terrain. The same strategies that make for an effective counter-insurgency strategy also improve the odds of success in a strategic manhunt, or at least increase the probability of a strategically satisfactory outcome even if the quarry is never apprehended. As the 13-year hunt for bin Laden demonstrates, patience is as much of a virtue for strategic manhunts as it is for counterinsurgencies.

Another way policymakers plan for long-term aspects of strategic manhunts

is by preparing the human terrain well in advance of the decision to target an individual. Long-term investments in indigenous forces—especially in partner-nation special operations forces—and the development of human intelligence networks in strategically vital regions, can pay large dividends when emergencies occur that require intervention. Had the United States maintained deeper ties with Pashtun sources in eastern and southern Afghanistan rather than washing its hands of the war-torn nation in the 1990s, it is possible that Osama bin Laden would have been captured or killed well before that quiet night in May 2011. **JFQ**

NOTES

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¹⁴ "Elite Officer Recalls Bin Laden Hunt," *60 Minutes*, October 5, 2008, transcript available at <www.cbsnews.com/stories/2008/10/02/60minutes/main4494937.shtml>.

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¹⁶ Hayden quoted in Jason Ryan and Brian Ross, "CIA Chief: Bin Laden Alive, Worried About 'Own Security,'" ABC News, November 13, 2008.

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²⁰ Bergen, *The Longest War*, 41.

²¹ See Sydney J. Freedberg, Jr., "Special, Short, and Stealthy: The United States Military Actually Has Some Successes Under Its Belt in Snatch-and-Grab Expeditionary Missions," *National Journal*, September 29, 2001, 298.

²² Fury, 190.

²³ Mohammed Musa quoted in Smucker, 110–111.

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²⁵ Tenet, 139–140.

Secretary Hagel speaks at National Defense University on strategic and fiscal challenges facing DOD

DOD (Glen Fawcett)

BEYOND SEQUESTER

Improving National Defense in an Age of Austerity

By RICHARD H. KOHN

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On his first day in the job, Secretary of Defense Chuck Hagel told the Pentagon that “We live in a very defining time . . . a difficult time . . . a time of tremendous challenge . . . with the budget and sequestration . . . We need to figure this out. You are doing that. You have been doing that. We need to deal with this reality.”¹ Chairman of the Joint Chiefs General Martin Dempsey put it more dramatically to Congress a week earlier: “What do you want your military to do?” he asked. “If you want it to be doing what it’s doing today, then we can’t give you another dollar. If you want us to do something less

than that, we’re all there with you and we’ll figure it out.”² Behind these blunt words lay a challenge to the Armed Forces unlike any seen for a generation or more: a cutback in funding large enough to call into question the policy, strategy, and force structure—in effect the purpose—underlying the entire military establishment.

Even with congressional permission for flexibility to manage the reductions, the puzzle will remain, in Secretary Hagel’s words, how to “figure this out.”³ The choices will be painful. At one extreme, the Services could surrender to less capacity to defend the United States; at the other, they can revisit

roles and missions, turning jointness upside down by igniting bitter inter-Service competition or making reductions that fracture longstanding relationships with military contractors, retired officers, veterans groups, and even foreign allies.

In the short run (fiscal 2013), nothing will avoid real hurt—for people personally and for programs, including delays and deferments that will reverberate into 2014 and beyond, and may add to costs in the long run.

families, Congress, and the contractors who will supply and profit from the purchases insist on the most capability with less regard for affordability.

Past as Prologue

Austere (or worse) budgets are nothing new for the Services. Inadequate funding has been the norm in nearly every peacetime period, which always began (until 1991) with huge reductions. Today's is the second

assesses the benefit of a long period of strategic warning. No Service organizes for, or even thinks much about, mobilizing the citizenry for large-scale war, the assumption being that for lack of time, the Nation will have to fight with the forces, Active and Reserve, present at the beginning.⁴ Inducting people would be relatively simple; training, equipping, and leading a greatly expanded force when all or most of the Active-duty and Reserve forces have been committed to the fight would be something else. Could American industry provide the high-tech weapons, and could the Services quickly train the men and women to use them? Little or no serious planning goes on for such a contingency, and no scenario on the horizon suggests that it is likely to. But the United States has been surprised in war almost every time, to a greater or lesser degree. If the Pentagon is truly preparing for the full spectrum of conflict, planning for a full-scale mobilization beyond the call-up of the Reserves is by definition necessary, and even some preparations would be wise and worth some modest expenditures.

Perhaps the most stressful period of General George C. Marshall's 6 years as Chief of Staff of the Army were the first 2, from September 1939 to the eve of Pearl Harbor, when he struggled to create a modern mass army. Even as the war began in Europe, it was not altogether clear what kind of conflict was coming. The Army could hardly predict that "37 percent of the total value of all materiel bought by the War Department" from 1940 through 1945 would be for airplanes or that keeping Britain and the Soviet Union in the war would be the cornerstone of success.⁵ The Navy, focused determinedly on fleet action, did not predict, even in 1941 after 2 years of war in the Atlantic, that the first battle to be won would be against German submarines and that the Navy would lose that battle for well over a year.⁶ Nor did either Service anticipate the indispensable role that landing craft would play in both the European and Pacific theaters, or the numbers and types that would be required.⁷

Readiness, Modernization, and Personnel

As the United States enters a period of relative peace, the chief challenge is how to choose among the three priorities of readiness, modernization, and personnel. Given the uncertainty and unpredictability of future war, the top priority must be to



F-35 Lightning II joint strike fighter delivered to 33rd Fighter Wing at official rollout ceremony, Eglin Air Force Base, Florida

But in the intermediate and long term, each Service and the military establishment as a whole can preserve American military power for the future if they choose wisely in the age-old tradeoff among readiness, modernization, and personnel.

Outside pressures appear strongest in readiness and modernization, the first from political leaders at home and abroad and the second from contractors and domestic constituencies. The country is on record as demanding that combat forces be ready, although ready for what is unclear to most everyone, and the record of prediction of what will be the next war, contingency, or deployment has been astonishingly poor for over a generation. After more than 10 years of continuous war, military equipment needs refurbishing or replacing. Few advocate foregoing the best technologies; Soldiers, their

contraction since the end of the Cold War. Even during that conflict, in the 1950s and late 1970s, one or more Service lost the budget competition (usually the Army because of the need to maintain a strategic balance with the Soviet Union). Yet even the Army survived to succeed after the reduction, largely for three reasons: the country enjoyed strategic warning and thus time to prepare; the Army understood that it was to be the core for a mass citizen ground force to be mobilized from the population; and outstanding military leadership at the top during the buildup and ensuing war.

Today differs from the more distant past because the United States both attempts to guarantee stability in several regions of the world and faces terrorist threats, and each of these challenges could require forces ready to intervene. The country no longer pos-

develop leadership that recognizes the kind of war that occurs or threatens, is flexible enough to adapt the people and forces to the tasks, devises the menu of strategies that will support the Nation's objectives in the conflict, and then executes the decisions of the political leadership with speed, secrecy, and least cost in blood and treasure. All of the Services know that wars are won by people, and particularly—crucially—by leadership. The quality of the people—how they are trained, how they are educated, and how they are led—will in the end, as much or more than how they are equipped or whether they are ready for the first fight, determine the outcome. To give one recent example, leadership largely explains why the Army came so close to failing in Iraq, and how in the end it prevailed in that troubled country.⁸

Douglas MacArthur, an officer of great accomplishment who was Chief of Staff from 1930 to 1935 during the depth of the Great Depression, provided a grim warning. He faced an even more desperate funding equation. He was so frustrated and so burdened by “emotional exhaustion,” as he recounted in his memoirs, that in a meeting with the President and Secretary of War in the White House, he “spoke recklessly and said something to the general effect that when we lost the next war, and an American boy, lying in the mud with an enemy bayonet through his belly and an enemy foot on his dying throat, spat out his last curse, I wanted the name not to be MacArthur, but Roosevelt.” Roosevelt “grew livid. ‘You must not talk that way to the President!’ he roared.” MacArthur recognized immediately the truth of that, “apologized,” offered his resignation, and after Roosevelt brushed it off, left and vomited on the White House steps.⁹

MacArthur consistently chose poorly, focusing on the size of the Army, starving modernization, neglecting technology (except for the Air Corps, which had its own vocal constituency in the Army and, more importantly, in Congress), and blaming Congress for the penury visited on the ground forces. His successor, Malin Craig, Chief of Staff from 1935 to 1939, actually decided “to freeze weapons development.”¹⁰ Yet the emphasis on personnel, while it sacrificed readiness and modernization, may have lessons for today.

Nowadays, on the surface, personnel worries seem secondary or even tertiary except for civilians and contractors who,

unlike their uniformed counterparts, are subject to cuts in pay and diminished contracts under sequestration. While all the Services will shrink, each retains the extraordinarily experienced combat forces, as has been the case after every war.

The future, however, may prove much more challenging. First, combat experience inevitably declines over time even when retention is relatively high, as people retire or leave the Service and operations and training funds level off or drop.

Second, as the economy improves, recruiting will come under pressure both in numbers and quality even with cutbacks in the size the Army and Marine Corps. Some 75 percent of American youth are ineligible to serve due to deficiencies of health, mental or other physical incapacities, or criminal records.¹¹ Some 85 percent of today's youth plan to attend college within a year of graduating from high school, few of whom consider military service. And as the economy expands and unemployment declines—even

ing him again and again into combat. The textbook *Combat and Operational Behavioral Health*, published in 2011 by the Office of the Army Surgeon General, concluded that Department of Defense “behavioral health-care delivery has improved dramatically,” but “one point that remains constant is that the human ability to adapt to the horrors of combat is finite.”¹⁵ As the medical services learn more, it may be that such wounds make sending these soldiers repeatedly into battle is neither militarily helpful nor ethically or politically acceptable.¹⁶ We seem already to be breaking new ground in allowing wounded soldiers to continue on Active, though perhaps limited, duty, and it is unclear how far that can go. In any event, it has become clear that the military health system is not adequately covering all the veterans suffering from wounds, particularly in the area of mental health.¹⁷

The all-volunteer force was never designed to sustain a large war or military campaign over time; the last two succeeded

75 percent of American youth are ineligible to serve due to deficiencies of health, mental or other physical incapacities, or criminal records

slowly—recruiting and retention are likely to become more difficult.¹²

Furthermore, people are expensive now and may prove to be more so years hence; the cost of soldiers and equipping them has risen dramatically in recent years.¹³ The all-volunteer policy survived the campaigns in Iraq and Afghanistan through raising the maximum enlistment age, offering signing and reenlistment bonuses, expanding education and other benefits, upping pay, modifying standards, the massive use of contractors, and other changes.¹⁴

Other problems loom. The incidence of Post-traumatic Stress Disorder and traumatic brain injury, which by some estimates are of epidemic proportions among combat troops returning from deployment, is only beginning to be understood, not only medically but also as challenges to treatment and healing, impacting the ability to send those affected back into combat. At present, the military does not possess the personnel to diagnose every individual, treat him, predict how long it would take to restore him to wellness, and what the consequences would be for deploy-

because of the patriotic surge after 9/11, weak civilian job creation, and the ingenious work-arounds mentioned above. Almost no one wants a return to a draft, no matter how temporary; it would be impossible to administer fairly anyway. The Pentagon would be wise to spend whatever is necessary not only to treat today's wounded, but also to improve prevention, assessment, diagnosis, and treatment so the volunteer force is capable of sustained combat and future budgets are not consumed by the costs of disability and medical treatment for veterans who will live longer than in the past.

The Primacy of Leadership

Of greater long-term significance, and far less visible, is the effectiveness of the officer personnel systems corps in each of the Services. Officers are critical not only to tactics and operations, but also to the indispensable function of advising the political leaders (and through them the American people) on the policies and strategies to accomplish national objectives. To do that, officers at the highest levels must understand



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Strategic Forum 280

*Russia Still Matters:
Strategic Challenges and
Opportunities for the
Obama Administration*

By John W. Parker and
Michael Kofman



Russia's recent authoritarian turn and Putin's pandering to anti-American sentiment have highlighted the obstacles to a genuine partnership with the United States, assuring that bilateral relations will be a lower priority for both nations in the next 4 years. Nevertheless, as a key United Nations member, a still formidable military and nuclear power, and new member of World Trade Organization, "Russia still matters," and the authors find and explore a set of mutual interests and concerns that necessitate pragmatic engagement between Washington and Moscow. In the near term, U.S.-Russian coordination will be required on the issues of Syria, Afghanistan, and missile defense in Europe. On a longer fuse, cooperation will be needed on such topics as the rise of China, security and development in the Arctic, and bilateral trade and development. In all these areas, the authors point out opportunities for the United States to advance its strategic goals.



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COMMENTARY | Beyond Sequester

strategy in enough depth and breadth to guide their staffs and decide on the choices most likely to succeed with a minimum of blood and treasure. In other words, each personnel system must develop officers who are engaged in the serious study of war. It has to recruit them, educate them, assign them, and promote them to the highest commands in the military establishment. Equally important, it is this capability—in policy, strategy, and the underlying study and understanding of war—that will enable a Service in peacetime to advise civilian leadership and Congress about the best choices in circumstances such as the Pentagon faces today.

During the first half of the 20th century, the United States succeeded in military

of wars are possible or likely in the near and distant future. The possibilities are far larger and more complex than counterinsurgency or high-tech conventional combat. It is unlikely, after the last decade, that the American people will soon countenance another long, indecisive limited war where American security and interests are dubious. "As General Marshall once succinctly put it, 'a democracy cannot fight a Seven Years' War.'"¹⁹

The greatest threats today are transnational terrorism, particularly with weapons of mass destruction, and cyber attack. None of the Services appears to have a significant role in countering that threat except for their special forces.²⁰ The larger, more indistinct

*it is unlikely that the American people will soon
countenance another long, indecisive limited war where
American security and interests are dubious*

strategy but in the second half failed. American arms have been operationally magnificent but strategically inept beginning in Vietnam and in almost every significant war since.¹⁸ It would be easy—and mistaken—to blame civilian leadership or the American people for these failures, as many did after Vietnam. Of course the civilian leaders were part of the problem. But our generals and admirals have little say in determining who is elected or appointed, how Congress operates, or how the American people feel and react to war. Some of our most successful war leaders—Abraham Lincoln, Woodrow Wilson, and Franklin D. Roosevelt in the Presidency, and John C. Calhoun, Edwin Stanton, Elihu Root, Henry Stimson (in his first stint as Secretary of War), and Melvin Laird overseeing the military—had little or no uniformed experience. And some of our most knowledgeable civilian officials, such as Jefferson Davis, Louis Johnson, and Donald Rumsfeld, had the least success. Senior generals and admirals do have a huge impact on what politicians think, the choices they have, and the goals they pursue, and that requires military advisers to have a deep knowledge of war and the keen judgment that arises from military experience.

Such capability is the first and chief requirement for making the budgetary choices facing the military today, for that requires informed guesses about what kinds

external threats involved in climate change, cyber attack, global financial instability, transnational crime on land or sea, and other political and economic threats hardly suggest the choices among manpower, readiness, and modernization or clarify the military's role in national defense. Other national security requirements—homeland defense—do not promise much of a role at least for the Active-duty force unless a disaster is so enormous it requires every available resource for consequence management. War is also merging with crime, both internationally in such places as Latin America and the Caribbean, and at home in some of our cities.²¹ This, too, does not suggest much of a role, although the Army has been involved historically, even though that can be controversial given our posse comitatus limitations at home and the unintended consequences of military interventions abroad.²² The "responsibility to protect" that is so prominent at policymaking levels is unclear in meaning and offers no guidance for the Armed Forces. Thus, the easiest (but not necessarily wisest) choice is to fall back on the most recent experience and what each Service has traditionally assumed to be its chief role, usually defined by its weapons systems, organization, or doctrines. It is true that each Service must maintain core competency, indeed excellence, in successful warmaking in its domain against a peer competitor. While each of the Services

needs to be ready for different types of wars, each has the responsibility to wage the most sophisticated conventional war possible to defeat any possible adversary.

The solution to the puzzle of how to absorb large budget cuts lies in developing officers who are thinkers as well as warriors. Over time, officers must be devoted to the profession of arms in all its varied aspects, to include the serious study of war—and many must be promoted to the topmost ranks. The first duty of senior military commanders is to determine what kind of wars they are in. The same can be said for peacetime periods: what is the situation of the country and what is most likely? Without such officers in the flag ranks, there will be little possibility of breaking out of business as usual, meaning a reaction to whatever comes and a period of catchup as the institution figures out the war it faces and how to adjust to it.

These worries about military leadership extend beyond the problems of strategy in the last half century. The loss of so many midgrade officers in the late 1990s and again just a few years ago may diminish the quality of the officer corps. So, too, may the high promotion percentages to O4, O5, and O6. In the last 22 years, the military has lost a surprising number of four-star officers to relief or unexpected early retirement before the end of their normal tours of duty: three chiefs of staff of the Air Force; a commander of U.S. Army Training and Doctrine Command; a Supreme Allied Commander, Europe, and three U.S. Central Command commanders; the suicide of a Chief of Naval Operations; a Chairman of the Joint Chiefs of Staff not reappointed to a second term; and the relief of two commanders in Afghanistan. Such turbulence at the top suggests that each of the Services should review its officer personnel system from recruitment to education to assignment to promotion. It should not escape Army leadership that in 2012, with nearly four times more flag officers than the Marines, the Army held only 60 percent of the warfighting four-star slots and only 50 percent overall of the four-star billets filled by Army and Marine full generals. Certainly in a sample so small other factors were involved, but this trend has been ongoing for years, and it is common knowledge that the Services monitor the filling of joint billets closely. Indeed, one Service secretary complained last year about his Service being discriminated against in

the filling of these joint positions.²³ So, too, do the Navy and the media closely watch the number of commanders relieved for cause, which seems to have risen in recent years.

Two years ago the Independent Review Panel for the 2010 Quadrennial Defense Review proposed several changes to an officer personnel system rooted in the experience of World War II and designed for the Cold War. The recommendations below,



U.S. Army

Soldiers stand guard during force protection exercise at Forward Operating Base Hadrian, Uruzgan Province, Afghanistan

taken from that report with an added recommendation, aimed to prepare officers for the challenges of this century and to strengthen military leadership over the next generation.²⁴

Career Parameters

Extend the length of career for every rank by 5 or more years to accommodate the broader assignment experiences involved in producing strategists and removing incentives to leave the Service for second careers. Longer careers would also save money in recruiting, training, and education, as well as by deepening experience. People live longer and are healthier and more productive at older ages. Already numbers of the most senior flag officers serve for more than 35 years in very high-pressure assignments.

Modify or abandon the system of “up or out.” Current personnel policy, constructed to avoid a superannuated leadership and favor youth and vigor, expels many capable officers at the waste of their capabilities and

forfeits their training, education, experience, and accomplishment. Many officers would be fully capable of serving longer in assignments they desire and in which they excel.

To conform to best practices in human resources in the civilian world, and to reduce toxic leadership at the higher ranks, the annual officer evaluation system should require so-called 360-degree written evaluations; that is, assessments by subordinates

and peers as well as by supervisors. Officers assessing their supervisors as well as their peers and subordinates would rapidly learn that their Service values delegating authority, treating others with dignity and respect, communicating candidly, mentoring and leading by example, deciding with dispatch and transparency, avoiding micromanagement and zero-defects expectations, and other traits conducive for inspiring leadership. The Chairman and Service chiefs are instituting this system for flag officers; it should be extended to officers at all ranks.²⁵

Precommissioning Education

At the Service academies, expand instruction in ethics, American history, military history, security studies, and related subjects. War is more a human than an engineering phenomenon, so more requirements in the humanities and social sciences and fewer in the technical areas would better prepare graduates for the profession of



U.S. Navy (Kenneth Abbate)

USS Mobile Bay at sea

arms, leadership at junior levels, and graduate school in the disciplines relating to war including staff and war colleges.

Also at the academies, radically reduce the numbers of athletes recruited for varsity teams. As a group, they come in with lower academic scores than their peers, do poorer in their academic work, drop out in higher numbers, remain in the Service in lower numbers, and rise to high rank less frequently. The academies should not lower their standards just to compete athletically, as do so many other institutions of higher education. Academy educations cost too much, and national security cannot afford to subsidize athletic prowess at the cost of too many less-capable officers.²⁶

Replace ROTC with all-expense scholarships to schools of choice for high school graduates selected on a competitive basis in exchange for enlisted Reserve service while in school and 5 years of Active-duty service. Many youngsters would take those scholarships to the most selective public and private colleges and universities (as students often equate quality with cost), reconnecting officership with the country's educational elite, perhaps attracting and

retaining even stronger officer candidates, improving their educations, and saving uniformed personnel for other duties and perhaps saving money. This could be tested with a few scholarship winners, but at a minimum, the cost of such a system should be compared honestly with the direct and indirect cost of ROTC.²⁷

Require foreign language proficiency and a foreign area familiarity for commissioning, waived only for rare specialties needed in the Services. Officers undoubtedly serve overseas in their careers in a variety of unpredictable situations. The study of any foreign language and country improves an officer's ability to understand and respect people of different perspectives, behaviors, motivations, and cultures.

Midcareer Education and Assignments

Require all officers promoted below the zone to earn a graduate degree in-residence at a top-tier civilian graduate school in a war-related discipline in the humanities and social sciences. No matter what their college or undergraduate major, officers headed for high rank need to be challenged intellectu-

ally and to sharpen their skills in critical, precise, rigorous, and imaginative thinking and writing. If the Services offer fully funded, in-residence graduate degree study at the country's most distinguished civilian institutions to all promising officers, retention of the most capable would increase, as would the quality of the officer corps over time.

To broaden experience and deepen their understanding of, and connection to, civilian society, encourage the most qualified officers in the middle ranks to take sabbatical assignments in civilian industry, nonprofits, civilian government, or elsewhere—actual working jobs, not research or study positions—with the opportunity to drop back in year group so as not to fall behind in the opportunity for promotion.

Require application for attendance at intermediate and senior Service schools, and selection by entrance examination administered by the schools in cooperation with Service personnel offices. Too many officers dislike and disparage these educational opportunities, are unprepared for them, approach them largely as necessities for promotion, and expend a minimum of effort during the year's course of study.



U.S. Army (George Hunt)

Soldier provides security in Paktika Province

Require graduates of senior Service schools to serve at least 5 years of additional Active or Reserve duty after graduation. Too many war college and fellowship graduates retire within 5 years in the Army (as of 2010, the other Services did not record any data), thus robbing the military establishment and the American people of a reasonable return on the educational investment.

Flag Rank

Require a tour teaching on a professional military education faculty for flag rank. Teaching a subject or discipline to college- and graduate-level officers provides time for reflection, sharpens critical thinking and rigorous, precise writing, and reconnects officers bound for flag rank with their disciplinary or military expertise, which are both helpful for the highest staff and command responsibilities.

Finally, loosen the rigidity of required assignments for promotion to the various flag ranks. Must an officer command at every level to reach three or four stars? Marshall and Eisenhower did not. Seed the promotion boards with flags who possess career experiences beyond the operational, and instruct them to select a larger proportion of similar

men and women. Extraordinary accomplishment at the tactical and operational level may not always produce the best experience for service at the policy and strategy levels. The serious study of war goes far beyond tactics, operations, leadership, and a host of other, more specialized subjects. Our Services are unmatched in the world today, and are probably the champions of all their American predecessors historically, in waging war. But *warfare* is broader. The U.S. military has demonstrated weakness in strategy and strategic thinking, which are the translating of national goals and government policy into military operations that will achieve the Nation's objectives—even those that change—in the shortest possible time, with the least expenditure of treasure and blood, and the fewest harmful unintended consequences.

The Challenge for the Secretary of Defense

As the new Secretary of Defense grapples with the difficult choices involved in reducing military spending, he will need to address important personnel issues facing the Armed Forces. He will need to nurture the military of the future, or what some once

called “the military after next.” To assure the strongest, most capable, and most effective force possible, he should think deeply about its leadership: recruiting the best of American youth who can be attracted to the military, educating them effectively, retaining as many as possible, and making sure the officer personnel system develops a large number of them to compete for the topmost leadership positions in their respective Services. Nothing could provide a greater gift of care and support to the men and women serving the country in the Department of Defense, uniformed and civilian. In doing so, he will assure that his successors, and those in the White House and on Capitol Hill, will receive the very best advice the most capable and experienced military officers can offer—the kind of knowledgeable and sophisticated thinking that can either keep the Nation out of war or ensure that it prevails in the quickest, cheapest, and most salutary way for the best interests of the country. If the Secretary can address the broader personnel challenges today and modernize the officer personnel system along the lines suggested here at the same time, his term in office will be consequential indeed. **JFQ**

NOTES

¹ “All-Hands Meeting with Secretary Hagel from the Pentagon,” February 27, 2013, available at <www.defense.gov/Transcripts/>.

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⁷ See Barry J. Dysart, “Materialschlacht: The ‘Matériel Battle’ in the European Theater,” in *The Big “L”: American Logistics in World War II*, ed. Alan Gropman, 348–349, 360 (Washington, DC: NDU Press, 1997); Kent Roberts Greenfield, *American Strategy in World War II: A Reconsideration* (Baltimore: Johns Hopkins University Press, 1963), 34–41, 72.

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¹² Hadley and Perry, 43.

¹³ Steve Merc, “WWII vs. Today: The Cost of Equipping a G.I.,” *Globe at War*, March 3, 2012, available at <[www.globeatwar.com/blog-](http://www.globeatwar.com/blog-entry/wwii-vs-today-cost-equipping-gi)

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¹⁵ Elspeth Cameron Ritchie and Michael Doyle, “Combat and Operational Behavioral Health: Final Thoughts and Next Steps,” in *Combat and Operational Behavioral Health*, ed. Elspeth Cameron Ritchie, 748, 750 (Falls Church, VA: Office of the Surgeon General United States Army, 2011). See also David Brown, “Brain damage from IED blasts and football concussions is similar, study finds,” *The Washington Post*, May 16, 2012, available at <www.washingtonpost.com/national/health-science/brain-damage-from-ied-blasts-and-football-concussions-is-similar-study-shows/2012/05/16/gIQAHO0nGUU_story.html?hpid=z5>. For coverage of TRICARE users, see Government Accountability Office (GAO), *Defense Health Care: TRICARE Multiyear Surveys Indicate Problems with Access to Care for Nonenrolled Beneficiaries*, GAIO-13-364 (Washington, DC: GAO, April 2013).

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¹⁸ See Richard H. Kohn, “Tarnished Brass: Is the U.S. Military Profession in Decline?” *World Affairs*, no. 171 (Spring 2009), 73–83; Robert Haddick, “This Week at War: Why Is Washington So Bad at Strategy?” *Small Wars Journal*, March 9, 2012, available at <<http://smallwarsjournal.com/print/12384>>. The point was made also in a larger critique of the officer personnel systems of the Armed Forces by Major General Robert Scales, USA (Ret.), “Leadership and Civil-Military Relations: Contemporary Challenges,” at Duke Law School’s Center for Law, Ethics, and National Security annual conference entitled “Battlefields,

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²⁴ These recommendations are drawn from Hadley and Perry, xviii–xxi, 40–53. The author served on the QDR Independent Review Commission and worked on these items in partnership with General Scales, who expanded on his views on the subject in his presentation on March 2, 2013, cited in note 19.

²⁵ Thom Shanker, “Conduct at Issue as Subordinates Review Officers,” *The New York Times*, April 14, 2013, A1.

²⁶ For the record of recruited athletes, see Lance Betros, *Carved from Granite: West Point Since 1902* (College Station: Texas A&M University Press, 2012), 67–68, 91, 100–109, 149–150, 159–160, 164, 171–172, 176, 188–201, 310–313. There is every reason to believe the naval and Air Force academies and their Services have similar records to West Point on admissions, varsity athletes, and subsequent officer careers. See also Joe Nocera, “The Military Prep School Scam,” *The New York Times*, April 9, 2013, A19.

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Marine prepares to depart on security patrol, Helmand Province

INSIGHTS FROM THE Women in Combat Symposium

By ELLEN L. HARING

When the U.S. Army invaded Iraq in 2003, Specialist Williams had a skill set that was desperately needed: Arab linguist. In 2009, Major Hegar's skills as a medical evacuation pilot were in high demand. And in 2011, combat medics Olson and Bringloe spent days on foot patrols or dropping into hot spots in Afghanistan rescuing wounded soldiers. In a particularly demanding 40-hour period,

Sergeant Bringloe rescued 11 soldiers despite suffering from a fractured tibia sustained during the third rescue of the 11 evacuations.

At a recent event in Washington, DC, Specialist Williams described translating during combat foot patrols in Iraq without the benefit of Small Arms Protective Insert plates in her vest because women were not expected to be in combat, and Major Hegar calmly described being shot down by insurgents and the ground fight that ensued before

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a rescue team arrived to extract the Medevac team. All these Servicemembers share a common trait. All are women and all hold “noncombat” military occupations.

In February 2013, these women—along with members of partner militaries who have fully integrated their forces, as well as women who were among the first wave of earlier integration efforts—gathered in Washington, DC, to share their experiences. The event organizers’ objective was to collect lessons for integrating combat specialties as the Services move to eliminate combat restrictions that have previously limited the military service of women.

The event was organized around several panel discussions. The first panel included testimonials provided by U.S. women whose actions in combat are documented with awards and decorations. The second panel included women from the United States and abroad who had been in the first wave of earlier integration efforts such as U.S. fighter pilots and female combat soldiers

from Canada and Norway. The third panel included men and women who studied the combat exclusion policy and had important observations based on those studies. The last panel included members of the military who had challenged the exclusion of women from combat units in the United States and abroad.

A post-event survey revealed that many audience members, including members of the military, do not know the extent of female Servicemembers’ participation in combat operations. There was extensive discussion about the need to document the experiences of these women to capture the lessons as the military moves forward with full integration. Panelists provided many important insights and lessons, but common themes resonated throughout the day including unique experiences that highlighted lessons across a range of involvement.

Common Themes

One of the key lessons of the first panel was that anyone, male or female, who is

deployed in current operations is likely to end up in combat and must be trained and ready for that possibility. The panelists included an Arab linguist who participated with the infantry in combat foot patrols in Baghdad, a cook whose convoy was attacked in Iraq, a rescue pilot whose helicopter was shot down in Afghanistan, a medic from a Female Engagement Team who was wounded during an outreach mission, and another medic who survived numerous encounters with the enemy while hoisting wounded soldiers out of operations in the Korengal Valley in north-eastern Afghanistan. Three of the women were awarded Purple Heart Medals, two the Distinguished Flying Cross, and one the Prisoner of War Medal.

The second panel included U.S., Canadian, and Norwegian women who served in the wake of the removal of previous exclusionary policies. Both the first and the second panels were asked to identify traits critical to success in combat. The most common response was teamwork. A

Marine Female Engagement Team officer provides security as Afghan residents are questioned and their vehicle searched for weapons and drug paraphernalia, Helmand Province



U.S. Marine Corps (Robert R. Carrasco)

close second was the ability to stay calm and focused in tense situations as well as the requirement for mental and physical endurance. Also mentioned was good leadership and technical competence. Physical strength was discussed at length since this is a commonly advanced reason to keep women out of combat specialties. While all of the panelists acknowledged the role of physical fitness, none believed that physical strength was a predictive factor to success. The panelists

lost important interactions that sometimes led to misunderstandings and the perception that they were not as committed to mission accomplishment as their male teammates. Panelists recommended that women never be separated from their teams under any circumstances because it negatively affects team cohesion.

Another key discussion centered on comments made by General Martin Dempsey, Chairman of the Joint Chiefs

all the women objected to the requirement for a "critical mass" and believed it is an undefinable and therefore unattainable concept

agreed that physical standards must be set and that women and men should be held to the same physical standards. None thought, however, that upper-body strength was a significant indicator of an individual's success in any combat operations.

Also discussed was the behavior of men on mixed-sex teams when that team is engaged in combat operations. Over and over, the women stated that there is always some trepidation during the first mission with any new team member, but there is nothing like a combat mission to clarify who can and cannot function when a situation becomes dangerous. They further stated that the first mission is always a test and that after a member proves himself or herself, everyone expects him or her to perform just like the rest of the team. None of the women ever experienced any men trying to protect them in any way that jeopardized mission accomplishment.

Privacy and hygiene requirements were also discussed. All the women asserted that living conditions only became problematic when they were arbitrarily separated from their male team members by socially imposed efforts to segregate men and women. In austere environments, they lived and slept in the same rooms and shared the same bathrooms with their male teammates even if the room was a bombed-out school with no roof and the bathroom was a slit trench. Any privacy requirements were easily resolved with the judicious use of a poncho or a turned back. The panelists noted that when women were separated from their teams while they were on a post or base, they

of Staff, during a Pentagon press briefing on January 25, 2013, where he announced the lifting of the combat exclusion policy. General Dempsey stated:

In order to account for [women's] safety and their success in those kinds of units we need to have enough of them so that they have mentors and leaders above them. You wouldn't want to take one woman who can meet a standard and put her in a unit where she is one of one. We have to work the standards and the "critical mass," if you will, to make this work.¹

The "one of one" and the "critical mass" comments generated great consternation for many participants at the symposium. Universally, the panelists stated that many times in their careers they were "one of one." However, they did not believe that this situation should be a barrier to any woman who meets the standards from being accepted into jobs for which they are qualified. Panelists stated that a woman does not have to be in a unit to act as a mentor for other women; men make good mentors, too.

While all the women objected to the requirement for a "critical mass" and believed it is an undefinable and therefore unattainable concept, Colonel Ingrid Gjerde, a Norwegian infantry officer on the panel, noted that she had had better experiences in units where she was not the only woman. Thus, while women have succeeded on teams when they were one of one, the inclusion of more women improves their experiences on those teams.

Unique Experiences

Specialist Shoshana Johnson, USA (Ret.), presented the first testimonial. She was wounded, captured, and held as a prisoner of war during the invasion of Iraq. Ms. Johnson revealed an unintended effect of the Geneva Convention rules on her captivity.² Because she was the only woman captured, she was isolated from the rest of her team. This segregation had a significant psychological effect on her ability to withstand captivity. While she understands the reason for the rule, she believes it should be exercised judiciously and on a case-by-case basis.

Specialist Heidi Olson, USA, a combat medic, provided a personal experience that is perhaps not uncommon for many young women in the military. Because of the combat exclusion policy and notions of what women should or should not do in combat, she often had to petition her unit leaders for permission to leave her operating base and go out on missions.

Recommendations

The role leadership plays in any successful integration was a recurring theme that could not be overemphasized. Time after time, participants provided examples of leaders and peers who tried to sabotage the integration and careers of women. The panelists then juxtaposed those experiences with leaders who set examples simply by showing respect for the women and by demanding of them the same high performance they did of men. Ultimately and unsurprisingly, successful units are led by people who are demanding, fair, and respectful of *all* subordinates.

Many mixed-sex combat support units have missions that are inherently predisposed to engage in combat. Since the invasion of Iraq in March 2003, military police units have over 10 years of experience with women who have engaged in combat operations. The dust-off community has extensive experience dropping in and out of kinetic operations. Moreover, women have been flying combat aircraft in all of the Services for almost 20 years. These successful units reveal that high standards have remained in place and that there is no adverse effect on the teams attributable to the presence of women. Morale does not suffer and mission success is not threatened. These units have already dealt with many of the challenges associated with including women in combat operations, and they should be studied



U.S. Marine Corps (Holly A. Williams)

Marine participates in obstacle course during physical training, Camp Johnson, North Carolina

since they represent communities of successful integration.

Representatives from Canada, Norway, and Sweden talked about their militaries' move to full integration. All three countries noted that full integration took more than 10 years, and that today few women serve in the combat specialties. Robert Egnell from Sweden provided perspectives that get to the heart of fully integrated military organizations. He asserted that integration is not achieved by making it an equality issue. Rather, it is more likely achieved by focusing on the enhanced capabilities that women bring to the operational success of the force. He further stated that these enhanced capabilities cannot be based solely on socially constructed gender roles. He questioned the notion that the military has figured out what "right" looks like. He stated that "right" is currently based on notions of hyper-masculinity that require superior brute strength and the willingness to use violence but that the reality of current operations does not depend on those traits.

One recommendation concerned how to move the integration forward quickly and successfully. Panelists advocated letting

midgrade women voluntarily reclassify into combat arms. Many women now have combat experience in a multitude of deployments. Allowing those who are qualified to move laterally into combat units would smooth the transition for entry-level soldiers—male and female—as they are assessed into combat specialties.

The following recommendations should be used as the Services move forward with full integration:

- Study units with combat missions in which women are currently serving. Take a hard look at military police, fighter pilots, and the medical evacuation dust-off community. Look closely at what the sapper³ school and fighter pilot communities have done to maintain standards while admitting women into their training pipelines.

- Examine how partner militaries have admitted women: Canada, Norway, Sweden, and others have already made this change and can provide important lessons.

- Allow currently serving women to reclassify to fill all positions. Do not only assess women at the entry level into combat specialties.

- Interview men and women who have fought together to find out what worked and what did not.

- Interview returning combat arms soldiers to determine what physical requirements they had to meet to accomplish their missions.

- Provide the same kind of training and awareness that was provided in preparation for the repeal of "Don't Ask, Don't Tell."

- Develop a narrative that educates soldiers about what women add to the dynamics and capabilities of combat units.

- Remove leaders who attempt to undermine integration efforts.

Conclusion

Integration is not new to the U.S. military. We have done it well in the past and we can do it well now. What it requires is an honest commitment from leaders who, even if they do not agree with a decision, are duty-bound to carry out the policy to the best of their abilities. Successful integration is wholly dependent on the committed support of leaders throughout the Services. Servicemembers will follow the example set by their leaders. **JFQ**

NOTES

¹ "Panetta, Dempsey on the Women in Service Implementation Plan," Pentagon press briefing, January 25, 2013, available at <www.youtube.com/watch?v=Acq7GfiEUSY>.

² Convention (III) relative to the Treatment of Prisoners of War, Geneva, August 12, 1949, available at <www.icrc.org/ihl.nsf/FULL/375?OpenDocument>.

³ *Sappers* are combat engineers or other personnel who support frontline infantry.

Singapore Navy RSS *Supreme* leads USS *Chung-Hoon* and Singapore Navy RSS *Vigour* during Cooperation Afloat Readiness and Training Singapore maneuvers in South China Sea

U.S. Navy (Andrew Smith)



Enhancing the U.S. Rebalance Toward Asia

ELEVATING ALLIES

By JAMES M. KEAGLE,
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After China responded with belligerence to the Obama administration's initial offers of partnership in 2009, by 2010 the United States had embarked on a new strategy of a "pivot" toward Asia, later rebranded as a "rebalancing." This strategy contains two interrelated elements: a desire to pursue deeper "engagement" with China while at the same time preparing for a new level of American and military capabilities to continue to deter China, a primary (though not exclusive) goal of the Air-Sea Battle (ASB) concept. It appears that China's growing antiaccess/area-denial (A2/AD) and accumulating power projection capabilities, tied to an increasing penchant to use its economic and military power to secure its interests,

will require a continuation of the rebalancing strategy in some form.

However, especially in the Pacific, the success of this U.S. response to China requires greater allied and friendly nation contributions from a region that abjures North Atlantic Treaty Organization-style alliances and wishes to retain growing mutually beneficial commercial relationships with China, as does the United States. Yet this article suggests that these goals are not exclusive and can be achieved while strengthening U.S. leadership by pursuing two broad paths: defining acceptable behavior for China while strengthening deterrence.

As has happened in Southeast Asia's response to China's belligerence in the South China Sea, Washington should lead a pursuit

of multiple codes of conduct that define minimum expected behavior from China in further realms such as other territorial disputes, cyberspace, proliferation, outer space, and military transparency, a process that should include but not be dependent on Beijing's participation. Setting goals that could result in substantial political and economic benefits would then help U.S. partners justify a higher level of hedging with Washington to strengthen deterrent capabilities on two broad levels:

- creating a regional intelligence, surveillance, and reconnaissance (ISR) system that provides constant situational awareness of Chinese military activities
- developing and selling a new class of missiles that allows U.S. and allied forces to respond with far greater speed to Chinese aggression—and ideally deter that aggression in the first place.

The Obama Administration's Pivot: Response to China's Regional Challenge

In a November 2011 *Foreign Policy* article, then-Secretary of State Hillary Clinton first officially articulated the policy basis for a U.S. pivot to Asia.¹ She emphasized that ensuring that the Asia-Pacific region remains stable and prosperous is key to advancing U.S. interests. Also in November 2011, the Pentagon announced formation of its Air-Sea Battle Office.² Though in itself a military-diplomatic statement, the Obama administration has gone to some length to deny that the new office's main mission was "anti-China,"³ but was instead to focus on the "generic" antiaccess challenge that could come from other states such as Iran. At that time, it was also revealed that the United States would station 2,500 Marines in Darwin, Australia, station littoral combat ships in Singapore, and seek greater military

cooperation with the Philippines. That was followed in early 2012 by an update to the Department of Defense (DOD) strategic guidance and defense strategy that called for a rebalance of U.S. forces to the Asia-Pacific region in order to "emphasize current alliances" and to "expand networks of collaboration" with other nations.⁴ Finally in June 2012, then-Secretary of Defense Leon Panetta announced more detailed plans concerning the forces the United States plans to shift to the Asia-Pacific region in the coming decade.⁵ Together, these statements, actions, and documents outline an emerging security policy toward Asia, in particular examining how China's rise could affect the region.

This followed the Obama administration's 2009 effort to craft what Secretary Clinton called a "comprehensive partnership" with China, downplaying differences over human rights and Taiwan in favor of seeking to elevate China's leadership status

U.S. Ambassador to China addresses reception for delegation aboard USS *Carl Vinson* in Hong Kong



U.S. Navy (James R. Evans)

in hopes of gaining its positive contributions to solving an expanded list of global concerns such as arms control, climate change, and financial stability—in addition to regional concerns such as North Korea.⁶ But by 2010, it became clear that Beijing was far more interested in advancing its own ambitions than in sharing burdens with Washington, be it climate change, arms control, its vigorous support for Pyongyang following North Korea's sinking of a South Korean corvette on March 26, or its rejection of U.S. offers for mediation of conflicting claims in the South China Sea at the July 2010 Association of Southeast Asian Nations (ASEAN) Regional Forum.

Foreign Minister Yang Jeichi's famous emotion-laden retort to the ASEAN summit—"China is a big country and other countries are small countries, and that's just a fact"⁷—underscores the attitude of "might makes right" that has characterized China's increasing use of military pressure in Asia. China's desire for control of the South China Sea is linked to its future power ambitions. Yalong Bay on Hainan Island, for instance, may potentially house a major new base for nuclear ballistic missile submarines and aircraft carriers that could be crucial for strategic defense and power projection into the Indian Ocean and could propel China's desire to push back Washington's influence, particularly in the Philippines. With a relatively less-dominant navy at the time, Beijing took advantage of a low point in U.S.-Philippines defense relations in early 1995 to occupy Mischief Reef, about 230 kilometers (km) from Palawan. In April–May 2012, after building a more powerful navy and coast guard fleet, Beijing felt bold enough to effectively bar Philippine ships from Scarborough Shoal, about 240 km from Luzon, thus building what some in the region interpreted as a zone of denial up the Palawan-Manila Trench, a vital sea lane for Asian commerce. China did this despite a half-decade of revived U.S.-Philippine defense cooperation including more frequent U.S. exercises and the beginning of U.S. conventional force reequipment. Meanwhile, China has diminished, although not rejected outright, an ASEAN-led effort to create a code of conduct that would restrain China's actions, refusing to make a code "binding" and using Cambodia to rupture "ASEAN solidarity" by its preventing criticism of China's

actions in the South China Sea during the July 2012 ASEAN Ministerial Meeting.⁸

China's apparent unwillingness to accept restraint highlights a divided U.S. perspective on China's rise. Some American viewpoints tend to favor the possibility

by the Chinese Communist Party's political requirement to prevent an independent "Chinese" democracy on Taiwan that would undermine the party's legitimacy, by the mid to later part of this decade, the People's Liberation Army (PLA) could be fielding a

*where the United States sees a "rising" China,
China sees itself reclaiming its
rightful place in the world power structure*

that China's resurgence will be peaceful given its deep two-way economic links with the United States, European Union, and Japan.⁹ Affirming this view would be China's contributions to antipiracy patrols off Somalia since December 2008. However, rising nationalism and increasingly outward projection have given some U.S. policy experts cause for concern that China's aim is to be a revisionist power that seeks to eject the United States from any role in the region and possibly displace its status as sole superpower.¹⁰

One Chinese view of history is that the United States is a "new" power of only a century or so, whereas China has a history of regional power dating back thousands of years. Where the United States sees a "rising" China, China sees itself reclaiming its rightful place in the world power structure. This might explain China's unwillingness to accept restraints on actions viewed as threatening by others, be it the curtailment of foreign access to its rare-earth minerals,¹¹ pervasive economic and cyber espionage activity,¹² rejection of U.S. appeals to begin "stability" dialogues regarding its nuclear weapons plans, continued proliferation to dangerous regimes such as its mid-2011 sale of transporter-erector launcher vehicles to carry North Korea's new intercontinental ballistic missile¹³ despite United Nations Security Council resolutions forbidding such sales,¹⁴ and use of intimidating coast guard ships in its September 2012 dispute with Japan over the Senkaku/Daiyou islands.¹⁵

China's Military Challenge in Asia and Beyond

Absent significant U.S. and allied investments, deterring China will soon become far more difficult due to its galloping military modernization and buildup. Spurred

force decisively superior to that of Taiwan's and capable of performing an early A2/AD strategy within the First Island Chain.¹⁶ This would also create the beginning of a broad regional and then global projection capability. The Chinese "heartland" is becoming a platform for large-scale joint force projection to advance Chinese goals of preserving the dictatorship in Pyongyang, containing Japan, suppressing democracy on Taiwan, extending control over the South China Sea, containing India, and gaining growing power over Central Asia.

If current trends continue, by the latter part of this decade, U.S. forces in Asia will be confronting a larger PLA A2/AD capability that will have multiple layers of ISR to include 15 to 20 surveillance satellites, long-range unmanned aerial vehicles, long-range phased array radar, over-the-horizon (OTH) radar, and electronic intelligence systems. The PLA can also be expected to deploy multiple low- and high-Earth orbit antisatellite systems.¹⁷ PLA ISR will be used to target layers of long-range missile systems, from a new 4,000-km intermediate-range ballistic missile (IRBM) expected after 2015,¹⁸ to the novel 1,500+km-range DF-21D antiship ballistic missile,¹⁹ and the new *X'ian* H-6K bomber modified to carry six or more 1,500-km-range CJ-10K cruise missiles. The estimated 1,600 short-range ballistic missiles aimed at Taiwan²⁰ include multiple versions of the 600-km-range DF-15 and 500-km-range DF-11 and are now being supplemented by the 800- to 1,000-km-range DF-16.²¹ To this could be added nearly 1,000 fourth-, four+, and initial fifth-generation fighters, most of which will be multirole platforms armed with families of precision-guided munitions and long-range antiship missiles, and assisted by surveillance and refueling platforms. At sea, the PLA Navy

could offer a force of 50 to 60 conventional submarines, over half of which would be modern *Kilo*-, *Song*-, and *Yuan*-classes. These could be joined by modern surface forces of at least ten 7,000- to 8,000-ton *Luyang II* and *III Aegis*-class destroyers, at least 16 Type 054 frigates, and littoral forces of about 80 SSM-armed *Hubei* stealthy fast-attack craft and 30 or more new 1,300-ton Type 056 corvettes.

Growing PLA air and missile forces will be further integrated with much modernized ground forces that, over the last decade, have benefited from intensive investments in new tracked and wheeled armor, artillery, mobility, and information systems. Army units in the Shenyang and Beijing Military Regions (MR) facing the Korean Peninsula are nearly as modern as the Nanjing and Guangzhou MR units facing Taiwan, while upgrading forces facing India has been a key priority more recently. The PLA can draw on an estimated 300,000 to 500,000 troops with some degree of amphibious training for Taiwan scenarios. Formal PLA amphibious lift, which could transport about one division to Taiwan, could be expanded to five or six divisions by mobilizing new civilian large- and medium-size ferries, according to a 2006 Taiwan estimate. The extensive development of rail and road networks, especially in the west, plus the incorporation of over 1,000 modern jet transports for “reserve” mobility, means that the PLA can far more rapidly shift its forces for operations on multiple axes. PLA investments in special operations and “irregular” capabilities also give it options to strike decisively in “low-intensity” conflicts with high strategic impact, such as in the East China Sea and South China Sea. The mobilization of hundreds of fishing ships near the Senkaku Islands in September 2012 illustrates one irregular capability that could quickly overwhelm Japan’s defenses.²²

Three other growing Chinese strategic capabilities further complicate U.S. and Asian deterrence calculations. By the late 2020s, China could have an initial maritime/air projection force of 3 to 5 aircraft carrier battlegroups and up to 12 large amphibious projection landing dock platforms or landing dock helicopter ships, plus growing numbers of the X’ian Y-20, a C-17 class airlifter, giving it the option to “pivot” against U.S. interests globally. This formal projection capability is complemented by China’s decades-long investment in advancing the nuclear missile

capabilities of its radical clients such as North Korea and Iran, which, if uncontrolled by Beijing, could undertake direct and indirect action against U.S. interests, diverting U.S. forces and attention to China’s advantage. Third, toward the end of this decade, China’s improving nuclear forces may be expanding to hundreds of warheads, many on new multiple independently reentry targetable vehicle-capable DF-41 or new DF-5 ICBMs.²³ The PLA may also have a substantial arsenal of tactical nuclear weapons,²⁴ and as it demonstrated in January 2010, is also actively developing missile defenses. Such a large and defended PLA nuclear arsenal would undermine the credibility of an extended U.S. nuclear deterrent for Asian allies, especially as the United States considers nuclear weapon reductions below the 1,550 deployed warheads in the latest Strategic Arms Reduction Treaty agreement with Russia.

Developing ASB: A Concept to Augment the Pivot

To augment the rebalance and provide an option to ensure that needed capabilities exist in an increasingly contested future environment, the U.S. Air Force and Navy have developed a new concept of joint operations called Air-Sea Battle (ASB). Some tout it as a panacea to thwart China’s A2/AD capabilities,²⁵ yet detractors denounce the concept as a failure foolishly masquerading as strategy that will ultimately harm actual U.S. capacity to rebalance to the Pacific.²⁶ Officially, ASB stands as a platform to further integrate cross-domain operations and provide the

focus on joint operations also meshes with the goals of the 2012 Capstone Concept for Joint Operations, which names the need to handle globally integrated operations as a primary goal of the U.S. military.²⁹

ASB, at its core, has one clear aim: to utilize joint capabilities in dynamic ways to ensure that the United States retains freedom of choice, in terms of military action, in the Asia-Pacific region. If China is able to use its A2/AD capabilities to limit U.S. options in a future scenario, it will succeed in “winning without fighting,” a longstanding tenant of Chinese strategic thinking. ASB is a tool that would parry that A2/AD thrust, retaining the ability of U.S. commanders to “seize the initiative at a time and place of their choosing.”³⁰ ASB is a more acceptable future possibility for U.S. strategic planners, who believe that to allow China to restrict American freedom of action would be to cede too much control to China, disrupting the balances of power in the region and weakening U.S. ties with friends and allies.

However, ASB is not meant to be an advocate for certain weapons systems, though the Services do have their early preferences. In a time of increasing austerity when the Services have to accept cutbacks or cancellations of key programs, they also seek to sustain core capabilities. Having seen the curtailment of the Lockheed Martin F-22 to 187 in 2010, the Air Force seeks to preserve as much as possible of its planned purchase of 1,763 Lockheed-Martin F-35 strike fighters as well as develop a new bomber by 2020 and a sixth-generation combat aircraft by

PLA investments in special operations and “irregular” capabilities give it options to strike decisively in “low-intensity” conflicts with high strategic impact

full leverage of all the various capabilities of the Services in one coherent operational concept.²⁷ ASB was born of the Joint Operational Access Concept, a document issued by the Defense Department in early 2012 that identified three critical areas where the United States will need to be prepared in order to deal with in the near future: A2/AD issues, changing U.S. international defense posture, and growing space and cyberspace as contested domains.²⁸ ASB focuses mainly on the first objective, promoting joint use of air and naval assets to ensure access. This

2030. As its planned 32 stealthy advanced capability DDG-1000 destroyers was cut to just 3 in 2008, the Navy seeks to preserve its 10 to 11 aircraft carrier battle groups and sustain a nuclear attack submarine force of about 50 ships.

While ASB does not specifically call for specific weapons systems, preservation of the F-35 at current estimates would greatly enhance its joint integration capabilities both among forces and allies. The F-35’s command, control, communications, computers, and ISR capabilities—spread across

Air Force, Marine, and Navy platforms, as well as integrated into the South Korean, Japanese, Singaporean, and Australian militaries—present the United States with a chance to leverage unprecedented situational awareness into the ASB concept. Having interoperable platforms across these forces would enable ASB to utilize F-35s in a “honeycomb” strategy, allowing scalable deployment options to provide on-demand and widespread support, and expand the capabilities, of surrounding forces.

Beyond air and naval deployment plans, another chance to develop a new level of U.S. deterrent capability in Asia was signaled by the August 2012 revelation that the United States would put a second 1,000–2,000-km-range AN/TPY-2 or Forward-based X-Band Transportable (FBX-T) radar in Japan, as well as a yet-to-be identified long-range X-Band radar in the Philippines.³¹ The first FBX-T allows possible coverage of North Korea and well into China, while a second FBX-T for an island in southern Japan (approved by both governments in September 2012) might reach into Central China. Washington might consider placing a version of the Raytheon SBX radar in the Philippines. Its 6,000-km range³² would enable coverage from Siberia to the Tasman Sea.

New U.S. radars are reportedly intended to provide much-needed early warning for missile defense interceptors. But their continuous coverage also provides U.S. allies and friends with an expanded real-time picture of Chinese military activities. They can also enable targeting for aircraft and new classes of missiles. Navy leaders are seeking a new balance between stealthy and expensive “platforms” and new and more capable “payloads” that better exploit the modularity of the vertical launch systems on ships and submarines.³³ When cued by new U.S. long-range radar, a new class of medium-range missiles—to include antiship ballistic missiles placed on ships and submarines—could greatly enhance deterrence by providing a new means for more rapidly countering PLA naval and amphibious aggression. Such a move would require renegotiation or withdrawal from the 1987 Intermediate-Range Nuclear Forces Treaty.

Elevating the Allied Role

By using elements of ASB to deepen military ties with U.S. allies such as Japan, South Korea, the Philippines, and Australia,

U.S. Navy (Chad J. McNeeley)



People's Liberation Army soldiers prepare for demonstration

plus friends such as Singapore, Indonesia, Malaysia, India, Vietnam, and Taiwan, ASB could affirm U.S. leadership by creating new means to deter China's growing military capabilities.³⁴ A new U.S.-led information-strike complex would establish a new level of nonnuclear deterrence in Asia that could increase the effectiveness of Asian missile programs. In October 2012, South Korea convinced Washington to allow it to develop missiles up to 800-km in range,³⁵ while in 2011–2012, there appears to have been a change in U.S. attitudes toward Taiwan's indigenous long-range missile program from opposition to acceptance.³⁶ While Japan has not developed offensive long-range missiles due to constitutional restrictions, it has developed solid-fueled space launch vehicles that could form the basis for an IRBM. For the United States and its Asian allies, a movement toward new classes of missiles would constitute a measured nonnuclear response to China's emerging ISR/strike A2/AD combine. Washington should also assist with allied missile programs, for example, by providing sensor-fused, munition-based warheads that could more effectively counter PLA naval swarming tactics and mass amphibious invasion operations—a growing requirement for Taiwan and the Philippines.

There would also be the option for U.S. friends and allies to calibrate their cooperation with Washington. Most value their growing commercial relationships with China and may require an added measure of flexibility. For example, while Australia agreed to host U.S. Marines at Darwin in 2011, in August 2012 it decided that it was necessary to make an awkward public judgment not to allow a U.S. carrier task group to station in Perth, likely in deference to China.³⁷

Contributing to a regional ISR network from which U.S. friends also gain an expanded and redundant view of the Asian theater would allow countries such as Australia and Taiwan to contribute and gain substantial strategic benefit without problematic stationing of U.S. forces. Australia, Japan, and Taiwan have powerful OTH or phased array radar that could contribute to a regional picture, while South Korea is developing its own long-range radar. For Taiwan, the United States could play the role of “server” that would receive and distribute Taipei's sensor inputs while providing Taiwan with a picture based on its own radar in Japan and the Philippines. Providing Taiwan with such redundant coverage would by itself enhance deterrence by ensuring no

degradation in defensive coverage if Taiwan's radar is attacked. For Japan, South Korea, Taiwan, and India, sharing an expanded ISR picture would greatly improve warning time for Chinese military action; Beijing would be less able to conceal military preparations in distant regions.

To be sure, China will not be pleased with such a course. In October 2012, it reportedly was forming a new office in its Ministry of Foreign Affairs for the purpose of better coordinating economic pressures to achieve its diplomatic goals.³⁸ However, it is possible to bolster resolve in Washington and in allied capitals by addressing Beijing on two levels. First, it should be told that the creation of a broad ISR network wedded to new missile capabilities is merely a symmetrical response to what China has been building over the course of the last two decades; Beijing did not clear its ISR/strike combination with any other country.

But on a second level, it may be possible to short-circuit another Cold War by following the example set by ASEAN and for Washington to take a leading role in establishing a series of codes of conduct that would at least result in levels of minimum acceptable behavior, especially for Beijing. The goal would be to put in motion the construction of political regimes that not only define the essential Western interests but also offer the potential for the widest benefits should Beijing choose participation over confrontation. There is already great interest in Europe, India, and Washington in establishing a code for acceptable behavior in space. Chinese opposition to a new U.S. and allied ISR/strike combine should be met with a multilateral program to create an acceptable code for regional military transparency, with the intention of moving toward eventual missile controls. Such codes could also be pursued for conduct in cyberspace and other territorial disputes such as in the East China Sea. Effort should be made to seek China's participation in the development of these codes, but Beijing should not be allowed to hold up progress.

Conclusion

As the Obama administration formulated its rebalancing, or pivot, from 2011 to 2012, it began to answer some of the questions about how it would enhance U.S. deterrent capabilities beyond numerous reports



of the Air-Sea Battle Office's early focus on seeking to enhance the joint capabilities of existing U.S. forces operating against A2/AD threats. The August 2012 revelation that the United States intends to place long-range radar in Japan and the Philippines opens the door to consideration of a next generation of deterrent capabilities for this region based on the creation of a regional ISR network wedded to new U.S. and allied missile capabilities. This would constitute a measured symmetrical nonnuclear response to China's quickly emerging ISR/strike network.

By pursuing a strategy of seeking multiple codes of conduct with its Asian and other allies, the United States may also be able to channel and moderate potential conflicts with China, provided China decides to join new global norms of behavior. Recent events give hope that China will willingly invest in these codes of conduct. Reports indicate that Beijing and Washington are considering sharing resources during joint operations, such as antipiracy patrols in the Indian Ocean.³⁹ These important military-to-military connections could serve as a bridge to further agreements on conduct. However, simultaneously, China may be looking to test another antisatellite weapon, a followup to the 2007 test that drew international condemnation.⁴⁰ If tested, this weapon could derail other programs that may otherwise lead to entrenching various codes of conduct. Ultimately, until more concrete progress is made on these codes, next-level deterrent capabilities can serve to prevent conflict. **JFQ**

NOTES

¹ Hillary Clinton, "America's Pacific Century," *Foreign Policy*, November 2011, available at <www.foreignpolicy.com/articles/2011/10/11/americas_pacific_century>.

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Thucydides, Benghazi, and HONOR

By ALAN GREELEY MISENHEIMER



Department of State

In his February 20 speech at the University of Virginia, Secretary of State John Kerry made the case for diplomacy as an instrument of national policy. Generations of thinkers have recognized that neither our country's diplomatic weight nor its military power can be applied with full effect unless our national security strategy makes optimal use of both. This is true in peace no less than in war, and also in the conditions of political

uncertainty that prevail in much of the Near East today. America's diplomats are pressing our nation's agenda in "some of the most dangerous places on earth," in the Secretary's phrase. The September 11, 2001, and September 11, 2012, Benghazi attacks are a reminder of that fact.

American diplomats in the Near East work in an environment that can transform instantly from hieratic welcome to chaotic hostility. We prepare for this by studying strategy and human behavior,

mastering techniques of influence and persuasion, cultivating fluency in the languages, cultures, and history of the region, and practicing the science of personal and institutional security that State's Diplomatic Security Bureau has advanced dramatically over recent decades. Since diplomacy is an ancient profession, predating the modern state by millennia, we also benefit from the study of ancient sources.

Ancient Diplomacy

Early cultures typically regarded foreigners as inherently threatening and even ritually unclean. Yet many recognized the

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need to communicate with other societies and developed a class of trusted specialists to undertake the task. It is thus the very essence of diplomats' missions to cross boundaries and serve beyond the limit of their countries' ability to protect them. Accordingly, it is nothing new for diplomats to find themselves in harm's way. In Asia, India, and Europe, traditions evolved holding diplomats sacrosanct and allowing them to travel unmolested. As today, these early concepts of "diplomatic immunity" sometimes failed.

The 13th-century Shah of Khwarezm caused the eradication of his state by torturing and murdering ambassadors bearing a goodwill message from Genghis Khan. Even in Greece, where diplomatic practice was first systematized, violations occurred. When the Persian King Darius sent envoys to the Greek city-states with a peremptory demand for earth and water as tokens of submission, the demarche was not well received. Those who visited Athens were cast into a pit, and those who took the message to Sparta were thrown into a well. The historian Herodotus indicates that some interpreted

peace proposals were frequently exchanged, and a negotiated ceasefire for recovery of the dead and wounded followed every battle. Treaty agreements were multitiered and complex, and recourse to arbitration was commonplace. Ambassadors from allied states met in conference, and well-timed demarches from smaller states sometimes altered the policy of great powers. Indeed the well-calculated (but deceptive) overtures of the Egestaeans swayed Athens to embrace perhaps the most catastrophic policy initiative ever adopted by a democracy: the failed invasion of Sicily, which crushed Athens's last hope for victory.

In studying the war that defined his age, Thucydides accomplished far more than simply chronicling the ebb and flow of an ancient conflict. His dense and uniquely analytical account goes deeper, examining the *nature* of war as an inescapable aspect of human civilization. In analyzing the political behavior of the Athenians and their leaders under the extreme duress of conflict, Thucydides revealed underlying patterns of human behavior that can be applied to any

to the policy decisions by both the Athenians and their adversaries that brought about the destruction of that empire. They are intertwined in every decision that every state adopts today.

Fear might be equated with the modern concept of national security. *Interest* surely relates to contemporary notions of economic prosperity. As complex as both concepts obviously are, they seem concrete and familiar. *Honor* is harder to pin down. I would suggest that honor, for purposes of Thucydides's triad, engages the concept of justice and encompasses the values, moral standards, and behavioral norms that shape the way people live. A country's honor may be more difficult to measure or quantify than its military capabilities or gross domestic product, but the power of honor to spur momentous action by states, groups, or individuals is undeniable.

Thucydides tells us that it was fear—"the growth of the power of Athens, and the alarm which this inspired in Sparta"—that made the Peloponnesian War "inevitable." But even on the eve of war, Sparta's king exhorted his people to an alternative that sounds consummately rational and strikingly modern: a peaceful solution is still possible; send envoys to Athens and negotiate in good faith; and in the meantime, make concrete preparations for future war.

The ephor, a lesser official who is nevertheless entitled to speak on an equal basis in the Spartan assembly, overcame the king's appeal with a simple rebuttal: The Athenians have undermined our status and harmed our interests; we must vote for immediate war "*as the honor of Sparta demands*." Even though fear was the underlying cause, honor set the tempo of the march to war. As states often do today, Sparta allowed the human passions that only honor can incite—especially when ideologues and demagogues enter the picture—to overwhelm any objective calculation of interest and security.

Frontline of Honor

Precisely because of this link to notions of justice, morality, and human passion, honor is the diplomat's special concern. Why? Because American diplomats, representing their fellow citizens and the interests of their society, live and work on the front-line of honor.

This is not to say that U.S. Foreign Service Officers are uniquely "honorable."

it is the essence of diplomats' missions to serve beyond the limit of their countries' ability to protect them

the destruction of Athens in the subsequent Persian invasion as divine retribution for these breaches of diplomatic immunity.

Classical Greek diplomats, known as heralds, credited their eloquence and retentive memory to the inspirational tutelage of the god Hermes, whom Zeus often entrusted with delicate diplomatic missions. For centuries, Greek and Roman diplomats carried a staff resembling the caduceus—Hermes's staff, incorporating two intertwined snakes topped by wings—as a talisman of their profession and symbol of the gods' protection.

Thucydides's History

Diplomats figured prominently in Thucydides's *History of the Peloponnesian War*, which recounts the epochal 27-year conflict between rival alliances led by Athens and Sparta (431–404 BCE). Once hostilities commenced, all discourse between the warring parties ceased "except through the medium of heralds," and the narrative highlights their role. Truce terms were debated,

political system, whether in war or peace. In seeking to understand war in his time, the historian elucidated the nature of statecraft for all time.

This universality is reflected in the fact that scholars have discerned Thucydidean paradigms in dozens of large and small wars throughout history including the Vietnam War, Cold War, two World Wars, American Civil War, and even a mid-19th century conflict between rival kingdoms in Fiji. It also explains why the book has survived long enough to become, as the historian intended, "an everlasting possession, and not a contentious instrument of temporary applause."

Fear, Honor, Interest

Thucydides's fundamental insight appears deceptively simple. He identifies three essential factors that, either singly or in some combination, motivate policy decisions: fear, interest, and honor. These motives guided Athens's rise to mastery of a far-flung empire. They were no less central



They would be the first to acknowledge that their country's diplomacy is augmented by partners from the civil service, military Services, and a range of civilian agencies, as well as the indispensable contribution of their locally engaged colleagues.

The point is that American diplomats practice their profession where their society's concept of honor—encompassing “our deepest values,” as the Secretary put it, including the rights and freedoms on which their society is built—comes into direct contact with those of other societies.

This frontline is not a battle line, and the “discourse of honor” diplomats conduct on behalf of their society is not a war. But in countries where the disjunction between “our honor” and “their honor” is wide, the friction inherent in the diplomat's daily task increases, as does the threat. The challenge escalates further when state institutions are weak or in transition, as in much of the Near East today.

Moreover, while disparities in wealth and military power are obvious, every society on Earth demands equal status for its sovereignty and equal respect for its prevailing notion of honor. America's superpower status thus brings little advantage in this discourse, and a frontal approach—for example, advice to a Middle Eastern Muslim interlocutor to “lighten up” in responding to caricatures or films deemed offensive to Islam—is apt to be as well received as the Persian king's demand for earth and water.

Rather, an American diplomat must engage on an equal footing with foreign

interlocutors to correctly understand the key tenets of the other society's definition of honor; relay this insight to Washington; convey, through word and action, key tenets of our own concept of honor; and, as possible, narrow the disjunction with an eye to averting conflict and establishing a foundation for increasing cooperation over time. For an American diplomat in the Near East today, success in this subtle enterprise requires immense patience, a well-honed ability to listen, and unshakable confidence in the American sense of honor. The outpouring of Libyan sympathy and admiration for Chris Stevens after the Benghazi tragedy demonstrates that he and his Embassy team were achieving success in the discourse of honor despite the extreme constraints of Libyan society.

Conclusion

Medieval Europe believed that angels were the first diplomats, entrusted by Highest Authority to carry messages between Heaven and Earth. Few American diplomats would claim such a sublime connection today, nor do they expect much guidance or protection from Hermes. Yet fortified by professional discipline and shielded by international law, bilateral arrangements, and their own precautions, American diplomats honorably follow the example of their ancient forbears. “Over there,” where differing brands of honor converge, and sometimes conflict, they cross boundaries of sovereignty and culture to carry out their duties on behalf of the American people.

Now, as in ages past, outrages against the inviolability of diplomats will occur. Indeed, the February 1 attack on the American Embassy in Ankara reminds us that threats exist even in friendly countries where standards of public security are high. The best we can reasonably expect is that such outrages will remain infrequent, and that when they occur all voices will again unite to condemn violators, acknowledge victims, and underscore the importance of diplomacy not only as an instrument of national power, but also as a vital buttress to international peace and security.

Above all, American diplomats in the Near East will continue, like their friend Chris Stevens and his team, to hold their positions on the frontline of honor where diplomats work, live, and sometimes die. **JFQ**



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*The New NATO
Policy Guidelines on
Counterterrorism:
Analysis,
Assessments, and
Actions*

By Stefano
Santamato with
Marie-Theres
Beumler



On September 12, 2001, the North Atlantic Treaty Organization (NATO), for the first time in its history, invoked the Article 5 collective defense clause after terrorist attacks on the United States. In the 11 years since, NATO used a pragmatic approach to fight terrorism, but the impact of this approach was mitigated by the lack of an agreed policy defining NATO's rightful place among counterterrorism actors. It was not until May 2012 that NATO agreed on a policy to define its role and mandate in countering terrorism. In this study, the authors review the evolution of the terrorist threat, NATO's response, and the new policy guidelines themselves, which focus on NATO's strengths of intelligence-sharing, capacity-building, special operations, training, and technology. But the guidelines are only a necessary first step. The challenge is to define an Action Plan to implement them. Toward this end, the authors recommend six cross-cutting proposals: apply net assessment, develop counterterrorism strategic communications, establish a homeland security constituency in NATO, promote a border security initiative, develop a “functional” counterterrorism partnership framework, and contribute to the Global Counterterrorism Forum.



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UNPACKING CYBERWAR

The Sufficiency of the Law of Armed Conflict in the Cyber Domain

By KYLE GENARO PHILLIPS

The term *cyberwar* is common in today's discussions of the national security challenges facing the United States and its allies. Understanding what law applies within the cyber domain is critical for all operational planners, whether or not they are directly involved in cyber operations. This article discusses the basics of how the Law of Armed Conflict (LOAC) affects cyber operations. It does not address the full spectrum of cyber operations, namely, defensive cyber operations and cyber exploitation (espionage activities). The focus is offensive cyber operations and the efficacy of existing international law in governing the use of cyber capabilities.

First, offensive cyber operations (hereafter referred to as cyber operations) are discussed generically as they pertain to military operations. Next, the "triggering" effects of certain activities rising to the level of "use of force" or "armed attack" are con-

sidered. Lastly, the article examines the law that applies to cyber activity during armed conflicts. In conclusion, the analysis of cyberwar reinforces the theory that although means and methods may change, the underlying rules regulating military operations adapt well to the evolution of warfare. Ultimately, the Law of Armed Conflict is sufficient to deal with the novel aspects of operations in the cyber domain.

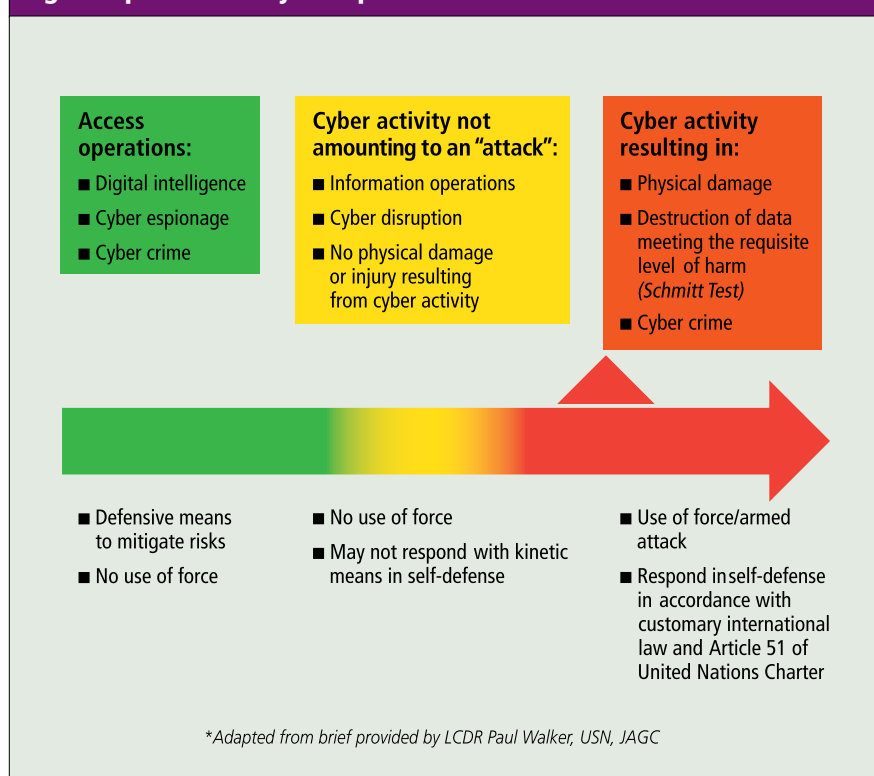
The Cyberspace Domain

Cyberspace is defined in a recent Chairman of the Joint Chiefs of Staff memorandum as a "domain characterized by the use of electronics and the electromagnetic spectrum to store, modify, and exchange data via networked systems and associated physical infrastructures."¹ The cyber domain is more than access to the Internet. As the definition implies, the cyber domain encompasses networked

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Airmen discuss Joint Precision Airdrop System prior to mission at Joint Base Lewis-McChord, Washington, using GPS to guide cargo to drop zone

Figure. Spectrum of Cyber Operations*

systems regardless of whether those systems are publicly accessed. Additionally, the cyber domain is a manmade physical entity and must be distinguished from operations performed within the domain itself. For example, information operations may be performed within the cyber domain but also through other domains of land, sea, and air as evidenced by the dropping of leaflets, personal engagements of key leaders with local populations, and public broadcasts.²

For purposes of the application of the LOAC, it is important to separate operations conducted exclusively in the cyber domain from operations in which cyber activity supports larger military efforts. Two examples from Richard Clarke's *Cyber War* illustrate the distinction.

First, the Estonia cyber event in 2007, although not officially attributed to the Russian government, involved attacking "botnets" resident in "zombie" computers that created a flood of cyber access requests. The distributed denial-of-service (DDOS) attacks led to the collapse of online banking, newspaper Web sites, and government electronic services within the state.³ The DDOS activity was conducted during a heated political dispute between the Russian government

and Estonia. A bronze statue was erected in Estonia recognizing the Red Army's efforts in "liberating" the Estonian population from the Nazis after World War II. The dispute over the statue involved Estonian legislation calling for the removal of the statue due to the increasing resentment by the population over the history of Soviet control following the war. The legislation was subsequently vetoed by the Estonian president in response to intense political pressure from Moscow. However, nationalists continued to call for the removal or destruction of the statue. The dispute moved into the cyber domain where the DDOS activity temporarily crippled the population.⁴ The activity against Estonia is an example of utilizing a cyber capability as the *primary tool* during a dispute.

Next, compare the Estonian case to an event involving Syria and Israel the same year. According to Clarke, the Israeli military utilized a cyber tool to control the detection systems in the Syrian air defense. The result was a radar picture that displayed only what the Israeli military wanted the Syrians to see. After the air defense systems were "owned" by the Israeli military, attack aircraft flew in and bombed a suspected nuclear weapons plant. Despite a number of contrary accounts

of the event, if true, the raid on Syria is an example of utilizing a cyber tool as a *supporting effort* to a traditional military operation.⁵

Cyber Activity and *Jus Ad Bellum*

Jus ad bellum is the international law governing a state's use of force and is based on the customary international law principle of a state's inherent right of self-defense. It is codified in Article 51 of the United Nations (UN) Charter governing individual and collective self-defense.⁶ The threshold question that must be answered to determine what law may apply to military cyber activity conducted by a state is whether an armed conflict exists between a state and adversary, be that adversary a state or nonstate actor. *Jus ad bellum* provides a starting point for the analysis on the lawful use of cyber activity by a state's military.

Article 2(4) of the UN Charter prohibits the threat or use of force by member states in their international relations against the territorial integrity or political independence of any state.⁷ As specified above, Article 51 recognizes a state's inherent right to individual and collective self-defense against an *armed attack*. The International Court of Justice in the case of *United States v. Nicaragua* highlighted the distinction between activity that would be an impermissible use of force under Article 2(4) but would not rise to the level of an *armed attack*, and that which would permit military action under Article 51's inherent right of self-defense.⁸ The cyber domain allows a state to conduct operations that fall below the use of force, as well as operations that might cause destruction to property or injury and death to persons. Cyber activity that causes death, injury, or property damage *could* rise to the level of a use of force or armed attack under international law.

As described by U.S. Cyber Command, cyber activity can be viewed along a spectrum of actions ranging from cyber espionage to access operations, and ultimately, on the far end of the spectrum, activity causing death or the destruction of property (see figure).⁹

Cyber espionage, for example, would not amount to the impermissible use of force or armed attack triggering the right of the offended state to respond in self-defense because the result is simply theft or access to another state's networked systems. Further along the spectrum, cyber disruption operations likewise would fall short of an unlawful use of force. For instance, disruption opera-

tions that involve accessing another state's networked systems and interfering with the operations of the network could violate the principle of nonintervention. This principle is grounded on the premise that states are prohibited from interfering in the internal affairs of other states. An aggrieved state may protest such activity through the UN Security Council, but simply accessing and manipulating data would not justify an armed response under customary international law or Article 51. The far right of the spectrum in the cyber domain is the use of force/armed attack through cyber operations. The threshold standard justifying the invocation of self-defense under Article 51 and customary international law is high. The cyber activity must result in either physical destruction of property or death or injury of persons through sufficient scale and effect to meet the definition of an armed attack justifying a proportional response in self-defense.¹⁰

The closest open-source example of use of force in cyberspace is the Stuxnet virus, which was introduced into Iranian nuclear facilities and essentially damaged the centrifuges used to enrich uranium.¹¹ This example is intriguing because what is known about the operation involved exclusively computer-based means to cause the physical destruction of a state's critical infrastructure. Of course, how a victim state qualifies "action" as either a use of force, armed attack, or some other activity interfering with the sovereignty of the state is an essential step in justify-

ing countermeasures or, in the extreme, a military response. The fact that the Iranian government downplayed the damage and impact of Stuxnet lessened the likelihood that the activity would be subject to an armed response in self-defense.

Despite arguments to the contrary, the application of *jus ad bellum* in cyber space is compatible with the traditional approach under international law. Matthew Waxman argues persuasively that cyber activity is not unlike any other novel weapon introduced in the international community. Furthermore, by applying an effects-based approach to cyber activity, operations in cyberspace should be judged by whether the effect of the cyber activity is tantamount to a prohibited use of force or military attack.¹² For example, if a certain cyber operation results in the physical destruction of critical infrastructure of another state, then the activity could be characterized as a use of force. Such activity might constitute an armed attack under international law if the force used were significant in the scale and effect against another state.¹³

The question of what activity rises to the level of a prohibited use of force under Article 2(4) and whether that activity constitutes an armed attack has been subject to differing international interpretations in the context of conventional weapons. Cyber activity certainly provides unique tools for states to employ against other states in furthering national security goals. However, by applying the

law as it exists today (*lex lata*) to an effects-based approach to cyber operations, states have a basis for characterizing the nature of the activity in order to determine what lawful responses are available.

Cyber Activity and *Jus in Bello*

The *jus in bello* is the law applied in war. The LOAC presupposes that an armed conflict exists. At that point, the *jus in bello* regulates violence in the conduct of military operations. Armed conflict is one of two varieties, international armed conflict or noninternational armed conflict. As Gary Solis notes in *The Law of Armed Conflict: International Humanitarian Law in War*, the conflict status is critical to determine what law applies.¹⁴ In an *international armed conflict*, defined as armed conflict between two or more states, the entire body of Geneva Law (Four Geneva Conventions of 1949 and Additional Protocol I) and Hague Law governing armed conflict would apply. However, in a *noninternational armed conflict*, defined as armed conflict between a state and an organized armed group, Common Article 3 of the Geneva Conventions, and, in certain circumstances, Additional Protocol II applies.¹⁵ While the cyber domain is novel in the tools available to warfighters, the current law is sufficient to govern activity in the cyber domain within the context of an armed conflict, be it international or noninternational.

Department of Defense policy is to comply with the



Air National Guardsman uses ROVER 5 handheld portable transceiver to view targeting data while performing close air support

U.S. Air Force (Jorge Intriago)

Soldier attempts to set up connection with call manager during exercise Cyber Endeavor, Grafenwoehr, Germany



U.S. Army (Shannon Lott)

LOAC no matter how an armed conflict is characterized and in all other military operations.¹⁶ The four core principles of LOAC are military necessity, distinction, proportionality, and unnecessary suffering. Cyber activity conducted during an armed conflict is governed by the same rules as other capabilities that a military force may use to ensure accomplishment of a unit's mission. However, prior to analyzing cyber activity within the framework of the four core principles, the first question that must be answered is whether the cyber activity constitutes an "attack" under the LOAC.

Attack is defined in Article 49 of Additional Protocol I as "acts of violence against the adversary, whether in offense or defense."¹⁷ Michael Schmitt emphasizes in his article on "Cyber Operations and the Jus in Bello" that violent action is required to constitute an attack.¹⁸ Cyber operations during armed conflict certainly could result in "violent actions" triggering the same legal and operational analysis of the four core principles as any weapon or capability within a state's arsenal. However, as discussed in the jus ad bellum analysis of sub-uses of force in the cyber domain, it is easy to contemplate that most cyber activity would not reach the violent action standard. Cyber activity could certainly be used as a shaping action in conjunction with a much larger operation carried throughout the military domains of land, sea, air, and space. For example, cyber activity could be used to provide certain information to the civilian population within the battlespace in the course of information operations. The target is the civilian population, but if the sole

purpose, and more importantly, the *effect* of the cyber activity is simply to influence and provide information favorable to U.S. military operations, the activity would not constitute an attack and the four core principles are not implicated.

A more difficult analysis lies in circumstances where there will be damage or destruction to civilian property. For civilian property to be subject to an attack, the principle of military necessity must be satisfied. *Military necessity* authorizes the use of force required to accomplish the mission. However, military necessity does not authorize acts otherwise prohibited by the law of war. Closely related to military necessity is the concept of *distinction*, which requires that attacks only be directed against military personnel and military objects. To satisfy this principle, cyber activity must be attributed to a state or nonstate actor. The example of the Estonian DDOS activity is a classic problem of attribution. The Russian government claimed no responsibility and blamed the DDOS activity on "hacktivists," patriotic Russians who independently used cyber tools to influence a foreign state.¹⁹ Attribution is certainly a significant problem in cyber operations; however, it is not insurmountable. Terrorist attacks and military operations conducted by insurgents sponsored by third-party states have raised attribution problems in the past. Existing resources can address the attribution problems in the cyber domain. Detailed intelligence, coupled with the experience and judgment of the responsible commander, are just as applicable in the cyber domain as in other areas of military operations.

Once a target is identified, it must meet the requirement of being a *valid military objective*, defined in Additional Protocol I as an object that by its nature, location, purpose, or use makes an effective contribution to military action, and whose total or partial destruction, capture, or neutralization offers a definite military advantage.²⁰ Cyber operations may be directed against exclusively military objects or against so-called dual-use structures having both military and civilian purposes. Targeting dual-use objects must comply with the standards of military necessity and meet the definition of a valid military objective.

A unique aspect of operating in the cyber domain is the simple fact that much of the infrastructure subject to attack also supports the civilian population. The concept of proportionality becomes critical to determining the lawfulness of cyber operations that result in the physical destruction of dual-use targets. The principle of *proportionality* states that the anticipated loss of civilian life and damage to civilian property incidental to an attack must not be excessive in relation to the concrete and direct military advantage expected.²¹ Dual-use structures such as radio transmission towers, power lines, and oil refinery stations are some of the most difficult targeting decisions to work through because of the effect their destruction will have on the civilian population.

Dual-use targets in the context of cyberwar are further complicated when the target is data contained on a network server. It is easy to imagine how certain data that aid enemy operations would meet the definition of a valid military objective. Also easy to imagine is how that same data could aid the civilian population. Professor Schmitt argues that data should not generally be characterized as an object in itself in the cyber domain unless its destruction causes the requisite level of harm.²² For example, destroying the entire banking system of a state may severely affect the civilian population. Additionally, destroying digital art would be analogous to destroying tangible art. Some attacks in the cyber domain would clearly be impermissible (targeting digital art), while others would only be permissible if there were articulable military necessity or operations could distinguish between the valid military objective and civilian objects. In the case of dual-use targets, the principle of proportionality would have to be satisfied. Cyber operations do present a unique opportunity to specifically

target certain aspects of a dual-use structure through methods that would easily satisfy the principle of proportionality. For example, the Stuxnet virus was specific as to which components of the centrifuges would be affected and what harm would result. If given the option to “destroy” a target using cyber methods that carefully calculate the anticipated damage to the surrounding area, clearly that method would be preferable to dropping a bomb on the target causing substantially more damage and potentially resulting in greater collateral effects. It is important to keep in mind that such operations resulting in the “destruction” of infrastructure—and in limited circumstances, data—are at the extreme end of the spectrum of cyber operations. The vast majority of operations discussed in open-source reporting involve a sub-use of force. Operations that focus on accessing data, influencing the civilian population through information operations, or disrupting cyber capabilities will

against the core principle of unnecessary suffering. Cyber tools have the unique advantage of not only mitigating the effects on the civilian population, but also more completely taking into account the effects on combatants and steering clear of any effects that cause unnecessary suffering under the LOAC.

Conclusion

The threat to U.S. national security in the cyber domain is real, but is the cyber sky falling? A discussion of all cyber threats facing the United States is beyond the scope of this article. Obvious challenges exist in the cyber domain, to include attributing cyber activity to a specific state or nonstate actor and the speed of action in the cyber domain. Both attribution and speed of action complicate the decisionmaking process and effectiveness of existing countermeasures. However, what is apparent is that within the context of *jus ad bellum* and *jus in bello*, the current framework is adequate to navigate

the effects of the cyber tool must still be considered against the core principle of unnecessary suffering

generally not reach the threshold of a “use of force” or “attack” as currently defined.

Finally, cyber operations must avoid causing *unnecessary suffering* to combatants. The LOAC principle of unnecessary suffering (commonly referred to as *superfluous injury*) recognizes that the harm caused even to combatants should not be unlimited. The LOAC proscribes certain means and methods of warfare designed to cause suffering to combatants that is substantially disproportionate to the military advantage.²³ Examples of means or methods that cause superfluous injury include poison gases, certain exploding bullets, and glass fragmentation devices that preclude identifying and treating wounds by X-ray. Lawful weapons can also be used in a manner that violates the principle of unnecessary suffering. Incendiary devices used for marking and screening in military operations, if used with the intent of causing unnecessary suffering by burning combatants, is one often-cited example. Cyber tools must be treated no differently than any other weapon system. Cyber tools and activity are not likely to trigger a prohibition per se, as have poison gases and blinding lasers; however, the effects of the cyber tool must still be considered

through the *operational* issues facing military professionals. From an operational perspective, cyber is simply one of five domains (land, sea, air, space, and cyber) that commanders must understand, plan, and operate in to accomplish the assigned mission. Similar to the introduction of airplanes and submarines in a commander's battlespace, cyber tools can be regulated using existing laws governing the use of force and military operations. The advantage of cyber tools exists in the potential to control the effects during an attack that could dramatically reduce the collateral damage associated with targeting military objectives. **JFQ**

NOTES

¹ General James E. Cartwright, USMC, Memorandum for Chiefs of the Military Services, Commanders of the Combatant Commands, and Directors of the Joint Chiefs Directorates, “Joint Terminology for Cyberspace Operations” n.d., 7.

² David T. Fahrenkrug, “Cyberspace Defined,” available at <www.au.af.mil/au/awc/awcgate/wrightstuff/cyberspace_defined_wrightstuff_17may07.htm>.

³ Richard A. Clarke, *Cyber War: The Next Threat to National Security and What to Do About It* (New York: Harper Collins, 2010), 13–14.

⁴ *Ibid.*, 15–16.

⁵ *Ibid.*, 1–3.

⁶ Sean Condon, “The Legal Basis for the Use of Force,” *Operational Law Handbook* (Charlottesville, VA: The Judge Advocate General's Legal Center and School, 2011), 1.

⁷ Brian J. Brill and J. Porter Harlow, *Law of War Documentary Supplement* (Charlottesville, VA: The Judge Advocate General's Legal Center and School, 2010), 1.

⁸ International Court of Justice (ICJ), *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*, Judgment of June 27, 1986, LEXIS 4.

⁹ Paul Walker, “Assessing Actions Along the Spectrum of Cyberspace Operations,” PowerPoint briefing at the James Stockdale Center for Ethical Leadership, Annapolis, February 29, 2012.

¹⁰ Tom Ruys, *Armed Attack and Article 51 of the UN Charter* (Cambridge: Cambridge University Press, 2010), 140.

¹¹ Gary D. Solis, “Cyberwarfare, the New Normal,” *The Law of Armed Conflict: International Humanitarian Law at War*, 2nd ed. (New York: Cambridge University Press, 2012).

¹² Matthew C. Waxman, “Cyber Attacks as ‘Force’ under UN Charter Article 2(4),” *International Law Studies* 87; Raul A. Pedrozo and Daria P. Wollschlaeger eds., *International Law and the Changing Character of War* (Newport, RI: U.S. Naval War College, 2011).

¹³ See *Nicaragua v. United States*; also *Oil Platforms Case* (2003 ICJ LEXIS 11).

¹⁴ Solis, 149.

¹⁵ *Ibid.*, 167–168.

¹⁶ Condon, citing Department of Defense Directive 2311.01E, “DoD Law of War Program,” para. 4.1.

¹⁷ Brill and Harlow, 210.

¹⁸ Michael N. Schmitt, “Cyber Operations and the Jus in Bello: Key Issues,” *International Law Studies* 87, 92–93.

¹⁹ Clarke, 15–16.

²⁰ Condon, 12.

²¹ Brill and Harlow, 211.

²² Schmitt, 96.

²³ Solis, 272.

AWAITING CYBER 9/11

By CLIFFORD S. MAGEE

Enemies no longer need to launch missiles or fly airplanes into buildings to attack the United States. A new weapon has been introduced into the world's arsenal, and that weapon has no boundaries or rules, costs little, and has monstrous potential. The weapon is cyber warfare. The Nation's security, economy, and critical infrastructure are under cyber attack every day. Some attacks are from nation-states such as China and Russia, while others are from nonstate actors such as terrorist organizations, criminal gangs, teenage hackers, and anarchists. To protect American financial systems, power grids, telecommunications, water supplies, intellectual property, and military communications, the U.S. Government needs to designate the Department of Defense (DOD) as the lead organization in preventing, detecting, and recovering from cyber attacks.

In 2009, the *Wall Street Journal* reported that Chinese hackers had gained access to the U.S. electric power grid and created secret openings.¹ There was no monetary value in gaining control of the electrical grid, nor was there any intelligence value that would justify cyber espionage.² The only reason to penetrate the grid's controls was to prepare to combat American military superiority with asymmetrical cyberwar.³ The Chinese had created a capability that could create power outages across the United States and possibly cause nuclear incidents without firing a shot. The victims were unaware their systems were compromised until the intrusions were detected by the U.S. Intelligence Community.⁴ What would the U.S. Government have done if it discovered that China had been laying

explosive charges throughout the national electrical grid system?⁵

The threats posed in the cyber domain are, in fact, an existential danger to the Nation. Currently, the United States does not have an organization with the capabilities or authorities to oversee cyber security for the public and private sectors. To develop this capability, the Nation needs to undergo a paradigm shift on how it views the cyber domain.

The Cyber Domain

In 1911, British naval theorist Julian Corbett in *Principles of Maritime Strategy* stated that the Royal Navy was necessary because it provided sea power to protect the goods and services that travel on the sea.⁶ The British economy was based on trade, and the sea lanes for communications and trade were extraordinarily important for the security and prosperity of Britain. Today, the security and prosperity of the United States is dependent on cyber trade routes, but cyberspace is vulnerable to attack. Signals and information can be intercepted, interrupted, and exploited. The Nation must develop a strategy to defend the cyber domain similar to the strategies it developed for defending land, sea, and air domains.

Integrated DOD efforts defend these domains. Defending air trade and commercial routes is not the responsibility of the Federal Aviation Administration or American Air Lines; it is the responsibility of the Defense Department.⁷ Similarly, Maersk Lines is not responsible for defense of the sea domain, but in the cyber domain, every American company is responsible for its own defense

without support from the Government. The U.S. Government does not have a lead organization to defend all government networks from attacks, much less assist with defending the private sector. DOD needs to be assigned the responsibility of defending the cyber domain with assistance from the Department of Homeland Security, Intelligence Community, and private sector.

DOD needs to develop an active layered cyber defense with offensive and defensive capabilities. Currently, most cyber defensive strategies rely on firewalls to block attacks. This method is similar to the post-World War I French creation of the Maginot Line,⁸ which was an expensive defensive measure designed to keep the Germans out of France. But in 1940 the wall did not work. The Maginot Line was a single capability; the strategy of the line lacked both a layered defensive structure and the offensive capability needed for defense. To avoid a cyber Maginot Line, the United States needs layered, integrated defenses as well as an offensive capability.

Defining the Battlespace

The cyber domain has been created in a short time and has not had the same level of scrutiny as other battle domains. Land and sea domains have had thousands of years of discussion to create generally accepted definitions. The air domain has

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had approximately 100 years of dedicated study. The discussions involving cyber as a battle domain are still nascent.

The rapid evolution and increasing complexity of the cyber domain have not allowed agreement even as to the definition of the cyber domain. Some define *cyberspace* as “the Internet,” while the Central Intelligence Agency’s (CIA’s) statement to Congress is that “cyberspace is the total interconnectedness of human beings through computers and telecommunication without regard to physical geography.”⁹ The official DOD definition of *cyber*—“a global domain within the information environment consisting of the interdependent network of information technology infrastructures including the Internet, telecommunications, networks, computer systems, and embedded processors and controllers”¹⁰—is the most thorough definition but is so encompassing it is difficult to comprehend. Understanding the characteristics of cyberspace would assist in understanding the definition of the cyber domain.

Cyberspace is a manmade domain created by information technologies. It is composed of radio waves, cell phones, fiber optic cables, satellites, laser beams, software, firmware, and anything that can be linked together to create a network.¹¹ Some elements required to support cyberspace are electronic components, electricity, and an infrastructure to connect it all.

Understanding the characteristics of cyberspace supports an understanding of cyber warfare. Cyber warfare is generally divided into two core operational capabilities: computer network operations (CNO) and electromagnetic warfare (EW).

CNO is a broad term that encapsulates three subcategories:

- *Network defense* protects computers and networks.¹²
- *Network exploitation* gains information from other computer assets.¹³
- *Network attack* disrupts, denies, degrades, or destroys information or capability.¹⁴

In 2008, DOD suffered a major failure in its network defense.¹⁵ It started when an infected flash drive was placed into a U.S. military laptop at a base in the Middle East.¹⁶ An authorized user brought the flash drive into a facility, but the drive was infected with a virus created by a foreign intelligence agency. Once the user placed the flash drive into a computer, the malicious code spread throughout the DOD network undetected.¹⁷ The virus infected both classified and unclassified networks¹⁸ and silently gave control of DOD servers to unknown adversaries.¹⁹ DOD has not released the full extent of the compromise, but the virus did have the ability to deliver information to adversaries clandestinely.²⁰ To clean and recover from what is described as the worst breach of U.S. military computers in history took 14 months and cost a billion dollars.²¹

Cyber espionage is a form of network exploitation that is currently a low-risk, high-gain activity. There are hundreds of exploitation programs and just one mid-range program globally exploits 50 times the



U.S. Air Force Academy cadets spend summer session in Cyber 256, Basic Cyber Operations course

U.S. Air Force (Raymond McCoy)

amount of data that was taken in the Wiki leaks espionage case.²² China, for example, has been accused of performing massive network exploitation operations against the U.S. Government and private industry. Attribution is difficult with network exploitation because even when perpetrators have been identified geographically, nations can claim that the exploitation was from a nongovernmental hacker acting independently. Whether state sponsored or not, Chinese hackers have been stealing intellectual research and development projects, software source code, and manufacturing know-how from the United States for years. The loss of intellectual property and government secrets due to network exploits has resulted in significant erosion of previous U.S. technological advantages.

A well-known form of network attack occurred in June 2010 when a computer virus named Stuxnet was discovered in powerplants and factories around the world.²³ More complex than any virus ever seen, Stuxnet was designed to attack industrial systems referred to as supervisory control and data acquisition (SCADA) systems. It had the ability to turn up the pressure inside nuclear reactors' centrifuge machines and switch off oil pipelines.²⁴ The virus exploited vulnerabilities that system creators were not

The weapon was relatively inexpensive to create, but Stuxnet is now a genie out of the bottle. The tremendously dangerous and sophisticated virus that successfully attacked a SCADA system is now available for free on the Internet, where one can find tutorials on how to design and even employ it. Therefore, it is a safe assumption that a variation of Stuxnet code will be reused to attack another institution in the near future.

Now that the technology of Stuxnet is widely available, it no longer requires a major financial investment or the backing of a nation-state. It can be copied and recreated easily. No fissile material or stealth technology is required, and it can be deployed at the speed of light. This demonstrates that the proliferation of cyber weapon technology cannot be easily controlled; the technology is cheap and spreading to traditional powers such as Russia and China as well as to terrorist organizations. Cyber weapon development is not going away; it will only proliferate.

The second operational capability in cyber warfare is electronic warfare. The DOD definition of EW is any military action that involves the use of the electromagnetic spectrum to include directed energy to control the electromagnetic spectrum to attack an

Federal Bureau of Investigation would arrest terror suspects, and the CIA was heavily engaged in intelligence collection against terrorist organizations. Terrorism was not a DOD focus. The events of 9/11 changed the focus for DOD, and the Defense Department now fills a major antiterror role because of the ferocity of the attacks.³² Similar to 9/11, adversaries today will exploit the Nation's cyber defenses in an effort to destroy the American way of life.

Cyberwar has already begun. Its costs are low and its impacts can be great. The United States is the most target-rich country in the world, but military networks are not the prime targets—those are in the civilian sector. Former Secretary of Defense Leon Panetta warned, “the next Pearl Harbor will be a cyber attack.”³³ Just as the attack on Pearl Harbor finally galvanized the U.S. Government and public sectors after years of aggressive Japanese actions throughout the Pacific, Secretary Panetta's warning is déjà vu. State and nonstate actors have been performing cyber operations against the United States at an alarming rate, and the loss of intellectual property as well as U.S. Government secrets has weakened the Nation's defense posture and negated its technological advantages. Yet it seems the “sleeping giant” is again awaiting a public, catastrophic event before awakening.

Defining critical infrastructure is a responsibility of Congress, but a series of Presidential decision directives defined *critical infrastructure* as “those physical and cyber-based systems essential to the minimum operations of the economy and government.”³⁴ This definition will need to be revised by Congress often as reliance on the cyber domain continues to grow.

In 2003, an engineering glitch in FirstEnergy, Incorporated, software caused a power outage throughout the Northeast and Midwest United States and parts of Canada, and 50,000,000 people lost power in 4 minutes.³⁵ This was not an attack. It was an inadvertent programming error.³⁶ However, if this had been an attack, the U.S. Government would not have had the ability or authorities to assist FirstEnergy. The United States lacks the ability for cyber coordination between government and private industry.

Placing DOD in charge of U.S. cyber defense would consolidate shared information about cyber attacks. A single point of information collection would create a cyber defense team approach between the private and public sectors. Attacks that occur in the private sector are rarely shared with the government. Even within the government, the .gov and .mil domains rarely share

Stuxnet exploited vulnerabilities that system creators were not aware of, referred to as “zero-day exploits.”

aware of, referred to as “zero-day exploits.”²⁵ Zero-day exploits are rare and extremely time-consuming to develop because they create vulnerabilities that have not been identified. Viruses rarely have even one zero-day exploit, but Stuxnet was so technologically advanced that it had four of these highly technical exploits.²⁶ Microsoft assessed that to create the virus took more than 10,000 man-hours.²⁷

When Stuxnet was deployed, it was looking for a specific target; if it did not see its target, it would lie dormant. Stuxnet was a precision-guided munition designed to attack the centrifuges that spin nuclear material at Iran's enrichment facilities.²⁸ If this attack were a traditional kinetic attack, it would have been an act of war. However, since the definition of cyber warfare is unclear and cyber attacks are difficult to attribute, Iran did not declare war because it did not know who executed the attack. Intelligence experts report that 1,000 centrifuges in Iran's main enrichment facility in Nantanz had to be replaced after the attack,²⁹ delaying nuclear production capability by 2 years.

enemy.³⁰ EW can be broken into three components: electronic attack, electronic protection, and EW support. The use of wireless Internet and cell networks has created a wide range of opportunities for the combination CNO and EW.

To protect government, industry, and national interests, the United States needs to adjust its current definition of the cyber world and develop doctrine for cyberwar. To quote Sun Tzu, “Invincibility lies in the defense; possibility of victory in the offense.” In the cyber domain, the Nation remains primarily defense focused, but to ensure safety, it needs to advance its doctrine to include offensive cyber operations. Currently, U.S. adversaries do not fear negative consequences from their cyber operations. The possibility of painful cyber or kinetic retribution must be understood.

Cyber 9/11

Before the events of 9/11, terrorism was largely considered a criminal issue properly handled by law enforcement and the Intelligence Community.³¹ Local police and the



Sailor uses hash analysis at Defense Cyber Investigations Training Academy

information on cyber attacks. Currently, DOD operates and protects the .mil domain, the Department of Homeland Security protects the .gov domain, and each private-sector entity is responsible for its own piece of the .com domain. There is no incentive for the private sector to reveal to the public sector the amount or types of cyber attacks that are occurring. Bank of America and most of the defense industrial base are not required to—and do not—reveal the types and numbers of attacks that are occurring within their systems. They, in fact, are disincentivized because customers, investors, and government entities contracting for their services may lose confidence in those companies' abilities to defend themselves.

Why DOD?

DOD has already created U.S. Cyber Command (USCYBERCOM), which is collocated in Fort Meade, Maryland, with the National Security Agency (NSA). This combination leveraged existing cyber capabilities that could not be replicated because the cost is prohibitive, and the intellectual resources resident at these institutions would be extremely difficult to recreate. Moreover,

integration of USCYBERCOM and NSA provides the people, expertise, and equipment required to defend the United States in cyberspace. General Keith Alexander, USA, serves as commander of both USCYBERCOM and NSA, and he ensures that the partnership leverages the capabilities of both commands.

USCYBERCOM integrates the existing pool of personnel, has substantial funding, and is authorized to perform offensive cyber operations. It draws its personnel from the private sector, government, and Service components. NSA employs over 800 Ph.D.s and is the world's largest single employer of mathematicians.³⁷ The 24th Air Force, 10th Fleet (Navy), Marine Forces Cyber, and Army Forces Cyber provide personnel with expertise and experience in defending mission-critical networks.³⁸ The nuclear command and control Emergency Action Network is one of the 15,000 networks that DOD defends, making the Department the largest cyber network in the world.³⁹ DOD networks are located across hundreds of installations in dozens of countries around the globe. USCYBERCOM headquarters has a fiscal year 2012 budget of \$159 million, and the DOD technology budget is approximately

\$38 billion.⁴⁰ USCYBERCOM thus provides the Nation an existing cyber defense capability, funding, and expertise that cannot be recreated or replicated.

USCYBERCOM has provided the .mil domain with the most capable cyber defense in the world, but the command is not authorized to direct the security of the .gov or .com domains. Legal authorities and response actions need to be authorized before a cyber attack is launched. Attacks against the United States would occur at "net-speed," and defenders of the U.S. cyber domain require maneuver space and authorities. If an attack against the .gov or .com domains occurs, it would not stop while the United States debates authorities.

The technical expertise required to view, understand, and coordinate actions in cyberspace is limited. General Alexander estimates that only about 1,000 people in the United States are currently qualified with the proper clearances, technical abilities, and certifications.⁴¹ This small pool of trained and proficient "cyber warriors" is a high value commodity that is fought over between the public and private sectors. The current model of the private sector—which includes vital



U.S. Navy (Tom Jones)

Cyber systems operator with CJTF 435 awaits confirmation that network connections operate properly at Kabul University's Law and Political Science School

infrastructure and provides its own defense without government assistance—does not leverage the limited workforce that exists in cyber defense. Designating DOD as the lead for cyber defense would leverage the small pool of experts and assist in cyber collaboration.

Cyber COP

To protect financial systems, power grids, telecommunications, water supplies, intellectual property, and military communications, the United States must generate a comprehensive picture of cyberspace. A cyberspace common operational picture (COP) that fuses the public and private realms would provide the Nation a tool that could be used to prevent, detect, and recover from attacks. DOD needs to be provided the command structure, resources, and authori-

ties to monitor, enact, and enforce security standards on the Internet. This is a national security issue because it affects the U.S. economy and defense.

To defend cyberspace, the United States needs to develop its situational awareness of the cyber domain. The U.S. Government and private sector are connected to the same commercial infrastructure. The cyber COP needs the ability to merge government and private-sector cyber pictures to focus efforts on known and emerging threats and to provide U.S. “cyber warriors” with the ability to outmaneuver adversaries in the defense or on the attack.

The proposed cyber COP can be understood by dividing it into blue, red, and white feeds. *Blue feeds* represent friendly devices that support our cyber networks.⁴² *Red feeds* represent threats to the network to include

adversaries, physical damage, accidents, and equipment failures.⁴³ *White feeds* provide situational awareness of activities outside of the U.S. cyber domain, focusing on emerging threats to provide defenders a proactive intelligence capability.⁴⁴

When the Armed Forces select a position in the real world, the focus is on selecting, capturing, and retaining key terrain. Similarly, the cyber COP would focus on key *cyber* terrain. The cyber terrain would need to be a prioritized list of key nodes that encompass the .gov, .mil, and .com domains. Visibility of the key cyber terrain would assist in situational awareness of cyberspace. Situational awareness is vital for timely and effective cyber responses. Situational awareness of the land, sea, air, and space domains would also be vital. For example, a relatively simple Global Positioning System denial of service

in response to an attack could have dramatic unforeseen impacts on the commercial sector (for example, shipping or aviation) or precision fires for the military.

In the past, DOD has relied on units moving into position as an indication or warning that an attack could occur. Learning of an imminent attack when forces are already in place is too late; combatant commanders need more time to prepare effective responses. Future conflicts will be preceded by an increased amount of cyber activity. An example is the 2008 Russian invasion of Georgia that successfully coordinated cyber attacks with kinetic attacks. The cyber COP would be able to sense traffic for anomalies that could provide indications or warnings that could push combatant commanders' timelines to the left.

The cyber COP would also assist in offensive cyber operations. Recent attacks on U.S. corporations such as Google, the Nasdaq stock exchange, Lockheed Martin, Symantec, and many others have demonstrated the threat to the private sector. After a lengthy forensic process, some of the attacks were attributed to China and Russia. These

responsibility to ensure that it and private companies of vital national interest are compliant with current best practices of cyber security policies. It also needs to set and regulate standards with respect to encryption and data protection as well as task DOD with ensuring cyber security compliance.

Cyber security is currently in its Wild West era where anything goes. There are no baseline requirements for cyber security, and companies are free to decide for themselves what constitutes enough security. Yet 73 percent of American Internet users have been victims of cyber crimes. According to MacAfee, the cost of cyber crimes globally has passed \$1 trillion because of lost intellectual property and damaged equipment.⁴⁶ DOD reports that its networks are probed for weaknesses about 250,000 times an hour.⁴⁷ The growth of and increased threat against e-commerce alone has made cyber security essential for national defense.

The government has a responsibility to set regulations and ensure compliance of cyber security. DOD, with collaboration from DHS, the Intelligence Community, and private sector, needs to publish required

its intellectual capital, technical expertise, equipment, and funding, which cannot be recreated or replicated; therefore, selecting DOD would be an efficient use of the Nation's resources. DOD already has some authorities to offensively respond to protect the United States in the cyber domain. State and non-state actors currently penetrate and exploit American cyberspace with no fear of retaliatory strikes. DOD is prepared and could provide a near real-time offensive response to cyber warfare.

The current model of networking in the United States is indefensible; DOD alone has 7 million devices working off of 15,000 disparate networks managed independently.⁴⁹ Recent technological innovations such as "cloud computing" must be leveraged to create a more secure, reliable, and cost-effective cyberspace. For example, collapsing the 15,000 disparate DOD networks to a cloud environment would provide it the ability to react to threats at "net-speed." This model must be used and coordinated with critical public and private sectors.

Vulnerability in the cyber domain threatens the security and prosperity of the Nation. Currently, the United States does not have an organization that has the capabilities or authorities to oversee cyber security for the public and private sectors. To defend against the ever-increasing number and complexity of cyber attacks, the U.S. Government needs to identify the Department of Defense as lead in cyber defense and enhance its authorities to fill that role. **JFQ**

cyber security is a team sport that requires players from the private and public sectors to share information

attacks occur daily and the attackers do not fear cyber retaliation. Retaliatory cyber tools exist—a cyber tool was recently developed by Japanese defense engineers,⁴⁵ a digital virus that can track down, identify, and disable attacking systems. The United States needs to assist in the defense of key private-sector industries by providing an offensive capability.

The framework for prioritization of fused information from the .mil, .com, and .gov domains has been developed and is currently operational in DOD, which focuses on categorizing vulnerabilities, threat activities, and their most likely consequences. The threat category and the severity of the threat drive resources, time, and attention given to an identified problem. The fused cyber COP would alert DOD of a threat to U.S. national interests.

Regulation Reform Required

To protect the American people, the U.S. Government has placed many types of regulations over the nuclear, electrical, health care, financial, and defense industries as well as government institutions, but has not created any meaningful regulations on cyber security. The government has a

baseline settings for firewalls, antivirus software, and encryption systems. Regulated and assured compliance of cyber security practices in key industries is a requirement for national security.

Conclusion

Today, the only entity not in the .com and .gov domains is DOD.⁴⁸ China, Russia, terrorist organizations, criminal gangs, teenage hackers, and anarchists have already paved roads into these domains, as well as into the .mil domain. The United States needs to develop a cyber strategy that protects government and extends protection to the Nation's privately owned critical infrastructure. Cyber security is a team sport that requires players from the private and public sectors to share information about vulnerabilities. The aggregated information would improve situational awareness and be the basis for a cyber COP. Improved collaboration would also be mutually beneficial for the private and public sectors.

DOD should be given the authority to lead the United States in cyber defense. An amendment to United States Code, Title 10, Armed Forces, to allow DOD to perform cyber investigations would leverage

NOTES

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*Trust, Engagement, and
Technology Transfer:
Underpinnings for
U.S.-Brazil Defense
Cooperation*

By E. Richard Downes



As Brazil's power and international standing grow, so does the importance to the United States of a close relationship with Brazil. Among emerging powers, Brazil is politically and culturally the closest to the United States. For this South American neighbor, defense technology has become a critical aspect of strategic reorientation and force modernization. According to author E. Richard Downes, sharing U.S. defense technology, including know-how, would strengthen U.S.-Brazil relations.

The two nations have taken initial steps to strengthen defense relations, including the 2010 Defense Cooperation Agreement and the first U.S.-Brazil Defense Cooperation Dialogue. Full implementation of 2010 agreements, pursuit of a shared vision of deeper defense cooperation, and development of a bilateral plan to advance the transfer of defense technology (and knowhow) based on Brazil's National Defense Strategy can improve defense collaboration and provide each country with important benefits.



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ON MILITARY CREATIVITY

By MILAN VEGO



Admiral Nimitz, commander of Eastern Pacific, briefs President Roosevelt, Admiral Leahy, and General MacArthur, commander of the Western Pacific, on operations advancing toward Japan

DOD

In the public mind, creativity is usually associated with the works of the famous painters, sculptors, musicians, philosophers, and scientists, but not of those in the military. Yet the success in a military domain in both peacetime and in war is hardly possible without considerable creativity on the part of the military institutions as whole and the commanders and their staffs at all levels. War is largely an art, not a science. Hence, it is inherent that military commanders and their staffs must be highly creative in planning, preparing, and employing their forces for combat. While technological innovations should never be neglected, focus should be clearly on those aspects of creativity most directly related to leadership. That is where the outcomes of military actions were determined in the past and it is where they will be determined in the future.

What Is Creativity?

Creativity is perhaps one of the most significant but least understood areas of human endeavor.¹ A great deal has been written about what constitutes creativity, but no theory is completely accepted. One reason is that different fields of knowledge require different factors in combination.² *Creativity* can be defined as one's ability to bring something new into existence—to generate novel ideas that are valued by others.³ It involves one's ability to properly evaluate and present already existing ideas or processes in a different way.

In general, to be creative and novel, a product or the idea behind it must transcend previous concepts or views. A creative product should have a high intrinsic value due to its essential originality and uniqueness.⁴ *Originality* is generally defined as any response or

behavior on the part of the individual that is atypical or unusual.⁵ A creative idea must be useful and satisfy some need.⁶ *Uniqueness* means that a certain idea or a product contains characteristics having nothing alike or equal in existence.⁷ A person could have an idea that is unique for him but in fact might be very common. The final result must be something new and uncommon in relation to a particular problem being studied.⁸

Military Environment

The military is a unique profession. It is characterized by the commitment of its members to unlimited service, extending to the risk of life itself. As in no other

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organization, the military trains its members to perform tasks they hope will never need to be performed.⁹ It has a strong sense of group identity, and its highly specialized missions and functions have led to a culture that is vastly distinct from society as a whole. A *military culture* is defined as the sum of intellectual, professional, and traditional values possessed by an officer corps.¹⁰

In contrast to their civilian counterparts, military artists must work within a rather narrow framework and are subject to numerous rules and regulations that must be factored in. All organizations, and the military in particular, tend to be wasteful. They are also subjected to various pressures, both external and internal. These pressures tend to reduce potential leaders to mediocrity.¹¹ Military culture is generally not conducive to finding a drastic solution to some new challenge. It tends rather either to resist any changes or, in the best case, slightly modify the existing situation.

The main obstacles to military creativity are posed by the military's inherent hierarchical command structure—an authoritarian, bureaucratized system—and its thinking, which is exemplified by conformity, group-think, parochialism, dogmatism, intolerance, and anti-intellectualism. The military is a highly stratified organization, and its leaders require prompt and unquestioning obedi-

ence and execution of orders. Leaders are usually selected without consultation with subordinates. The peacetime environment encourages breeding of officers who rigidly follow rules. Such officers conform to the wishes of superiors and sacrifice their own independence of action by first ascertaining the preferences of their leaders and basing their own conduct on those.¹² This problem is compounded in a military where the officer corps is highly politicized—where ambitious officers try to cultivate personal connections with politicians, which often leads to political interference in military promotions, especially at the highest levels.

The highly centralized and hierarchical command organization reinforces the *authoritarian* tendencies on the part of the higher commanders. Authoritarianism is a major obstacle to the creativity of both individuals and the military institution as a whole. Often, higher commanders are reluctant or unwilling to acknowledge their own failings openly or tacitly. They try to keep the image of infallibility. They also often refuse to learn from their errors.¹³ Finding someone to blame for errors and accidents is a common occurrence in a military organization. Authoritarian structures allow pressure only to be applied top-down, not bottom-up. Yet in practice, it is from the bottom that creative ideas are usually generated. B.H. Liddell

Hart wrote in his *Memoirs* that “if a soldier advocates any new idea of real importance, he builds up such a wall of obstruction—compounded of resentment, suspicion and inertia—that the idea only succeeds at the sacrifice of himself. As the wall finally yields to the pressure of the new idea, it falls and crushes him.”¹⁴

Like any other large organizations, military institutions are often heavily *bureaucratized*. They force their members to apply numerous fixed techniques and procedures in the erroneous belief that this would enhance effectiveness. Yet it has just the opposite effect because the rank-and-file relies on a fixed routine instead of using judgment and experience. The mission of the institution is increasingly forgotten or ignored. The chiefs of various departments or sections create veritable fiefdoms of power and influence and try to devise ways to protect and expand their authority and power. They are also often resistant to any change because change is considered a threat rather than an opportunity. Hence, any novel idea is usually dismissed as impractical, irresponsible, or absurd. The existing rules and regulations became the ends in themselves.

Another problem associated with bureaucratized thinking is reliance on various checklists and matrices for planning instead of relying on the intelligent judgment

American troops in tanks advance in World War I



U.S. Army

and experience of the commanders and their staffs. For example, the U.S. military widely uses the so-called universal joint task force list, universal naval task list, naval tactical task list, and Marine Corps task list. These lengthy documents aim to replace thinking with ready-made tasks that simply have to be listed. They are the antitheses of creative thinking. For example, the U.S. military has lost its way in writing concisely, clearly, and using plain language by its overuse and abuse of various buzzwords.¹⁵ The use of buzzwords can be intended to impress the audience or readers, win arguments, or grossly inflate the importance of *unimportant* ideas. By using vague or opaque words, one can give a positive connotation to questionable propositions. Bureaucratized thinking is directly responsible for this sad state of affairs.

Conformism is a major obstacle to creativity in a military organization, especially during peacetime. A given military force has the need for stability, which is ensured by conformity. Within a group, conformity pertains to members changing their personal attitudes and beliefs to align with the beliefs of a group as whole. It is most often the result of a peer pressure. The most extreme manifestation of conformity is so-called groupthink, which exists in small or large organizations when members mimic the thinking of their superiors. Groupthink is the antithesis of creativity.¹⁶

The very structure of the military is aimed to ensure the maximum conformity of its members. This tendency is further aggravated by the conditions of peacetime service and of human weaknesses.¹⁷ The military organization uses myriad standard operating procedures and regulations to ensure this high degree of conformity. The selection and promotion process is often biased against officers who think and act outside the box.¹⁸ Moreover, many military theorists and practitioners are uncomfortable with the notion that warfare is largely an art and not a science. They consider warfare as destructive and grim while art is beautiful and creative. To allow too much creativity would invariably lead to anarchy.¹⁹

The military needs the stability of conformity so it can successfully function in peacetime and in war. Yet at the same time it also has a paramount need for creativity; otherwise, it is doomed to failure when a supreme test of war comes. One of the most demanding tests for any military leader is to

appropriately reconcile these contradictory requirements. Experience shows that military organizations that succumb to conformity eventually decline. The enemy essentially only delivers the final blow, as the case of the French army in 1940 illustrates.²⁰ Around World War I, the Japanese naval academy increasingly emphasized rigorous regimentation and memory work at the expense of originality, individuality, and creativity; the unimaginative emphasis on cramming and rote memory ended any original thinking.²¹

Parochialism within the Services can sometimes be a serious obstacle to creativity. Each Service has a distinctive organization, culture, tradition, and way of warfare. The individual beliefs of Servicemembers are institutionalized through education, training, and socialization.²² Service parochialism is reflected in the resistance to close cooperation

War (1861–1865), Russo-Turkish War of 1877–1878, Anglo-Boer War (1899–1902), and Russo-Japanese War of 1904–1905 was simply ignored. These wars showed enormously increased capabilities for defense.²⁴

In Germany, the cult of the offensive was glorified. Field Marshal Alfred von Schlieffen wrote that “attack is the best defense.”²⁵ Similarly, the French army was so obsessed with the offensive that it spread to civilians. Marshal Joseph Joffre (1852–1931), chief of the General Staff, wrote that the French army “no longer knows any other law than the offensive . . . Any other concept ought to be rejected as contrary to the very nature of war.”²⁶ The British military and some other European militaries also believed in the superiority of offense over defense. Many officers in France and Britain also believed that superior morale would overcome

experience shows that military organizations that succumb to conformity are eventually doomed

with other Services during planning, preparation, and execution of military action. One of the most pernicious effects of strong parochial views is that the Services often do not fully agree on a certain organizational options. This, in turn, has highly adverse effects on the performance of a joint force in combat.

Many militaries are characterized by rigid if not outright *dogmatic* views on many aspects of their activities in peacetime and in combat. This is often the case with military doctrine. Optimally, doctrine should be descriptive, not prescriptive. It should be highly flexible, allowing its application to fit in different physical environments and different fundamental warfare areas. Despite great potential value, doctrine can easily slide into dogma. It can become a substitute for creative thinking about warfare. That is especially the case in an era of rapid technological change. A military doctrine can narrow one's vision by dictating the questions and thereby imposing certain answers.²³

Prior to World War I, the cult of the offense was dominant in Germany, France, and Great Britain. The prevalent view, based on the experiences of the wars for German Unification (1864, 1866, 1870–1871), was that new weapons gave a decisive advantage to the attacker. Consequently, a future war would be short and decisive. The contrary evidence as provided by the American Civil

superior enemy firepower.²⁷ Yet after the battle on the Marne in August 1914 and on until the final Allied offensive in the fall of 1918, the clash on the Western Front degenerated into a war of attrition. The high commanders on both sides tried over and over to achieve limited tactical successes and in the process suffered huge casualties.

In the 1920s, there was considerable debate and flexibility about the French army's doctrine. However, that essentially disappeared in the 1930s in part because regression was seen by the French high command as an attack from the left—an infiltration of the army ranks by communist agitators. The French army became more rigid by applying the rules of its doctrine almost without exception, regardless of circumstances.²⁸ In 1935, General Maurice Gamelin (1872–1958), commander in chief of the French army, tightened the control of military writings and required that all publications receive prior approval; only official views could be presented. In 1934, Lieutenant Colonel (later General) Charles de Gaulle (1890–1970) was refused permission to publish an article in the *Revue militaire française*, and after his public campaign for armored offensive tactics, he was taken off the promotion list. Those who challenged official doctrinal views were silenced. Endorsement of official views was the rule. There was no lively debate. Consider, for instance, the Spanish

Civil War. Both German and Soviet military journals devoted enormous attention to the study of that conflict. The *Revue militaire française* rarely covered it, and when it did, it provided little analysis.²⁹

French army doctrine was based on a carefully orchestrated attack, rigidly controlled divisional boundaries, and a slow, phased advance in which air, armor, and artillery functioned in tightly controlled harmony. That was exactly the opposite of the German concept of air-land battle

those of superiors. Higher military officers and commanders should avoid setting the tone of professional debate, as it was during the heyday of U.S. military transformation in the early 2000s, and thereby stifling contrarian views. Higher authorities should create an environment that encourages and furthers reasoned debate. Critical thinking should be the norm and not the exception. No military organization can be successful or even survive without a free and open debate on important professional matters.

higher commanders should avoid setting the tone of professional debate and thereby stifling contrarian views

(Blitzkrieg), which stressed individual initiative, opportunistic exploitations of unexpected openings, and local vulnerabilities in the French lines.³⁰ Prior to the German invasion in May 1940, the French believed the Germans could not and would not ultimately perform radically differently than their own forces. They refused to see that the enemy had other options. The sense of infallibility was aggravated by an institutional bias against feedback that contradicted existing doctrine or preparations. There was little learning because the high command had all the answers.³¹

In the 1930s and until the raid on Schweinfurt in August 1943, the U.S. Air Corps embraced the theory of strategic bombing as dogma despite growing empirical evidence that this theory was based on false premises. In 1937, the U.S. military attaché in Spain suggested that high-altitude bombing was ineffective and that small tactical bombers and fighters offered the best combat capability. The Air Corps, then in the midst of a funding debate concerning the B-17 bomber, brushed aside the report, arguing that such views contradicted the existing doctrine and hence could not be accepted.³²

Often, military organizations lack *tolerance* of views that diverge from the so-called mainstream. Yet without tolerance no creativity is possible.³³ Intolerance usually stifles the discussion of professional topics in peacetime, as was the case in the British and French militaries in the interwar years. Ideally, officers and the rank-and-file should be free to express their opinions on professional matters. They should not be ostracized or punished for having views that differ from

Another serious factor detrimental to creativity in the military is the *anti-intellectualism* often generated by an overly authoritarian command structure. An officer with an impressive academic pedigree and/or a scholarly approach to a given problem is often considered a threat because he or she makes the aura of infallibility upon which the prestige of authoritarianism is built dubious. Yet the necessity for intelligent, independent, and creative thinking in war is obvious. At the same time, the cultural obstacles to dislodging the all-pervasive assumption of the infallibility of higher commanders are often very high. Lip service is paid to the need for independent and creative thinking, while it is given short shrift in practice.³⁴ For example, British Prime Minister David Lloyd George (1916–1922) observed, the “military mind . . . regards thinking as a form of mutiny.” Bernard Brodie wrote that soldiers have always cherished the image of themselves as men of action rather than as intellectuals.³⁵

In most militaries, there is considerable prejudice against those who seem excessively intellectual. There is the widely held belief that fighting depends more upon muscle than brain and that any display of education is not only bad form but also incapacitating.³⁶ Yet the most successful military leaders such as Napoleon I, Helmuth von Moltke, Sr., Erich von Manstein, George Patton, Douglas MacArthur, Ernest King, Chester Nimitz, and Raymond Spruance were excellent thinkers and practitioners. The lack of solid professional education and self-education has been one of the underlying reasons for military incompetence.

Experience shows many examples in which independently thinking and creative officers were forced to change or even abandon views because of open or hidden opposition from their superiors. For example, Patton and Eisenhower began to seriously think about armored warfare in 1919–1920. Patton wrote articles for *Cavalry Journal* and Eisenhower for *Infantry Journal*. Eisenhower was summoned by Major General Charles Farnsworth, chief of infantry, and told that his ideas were not only wrong but dangerous. Eisenhower was warned that in the future, his writing should be in conformity with doctrine.³⁷

In Britain, the prevailing attitude in the 19th century and interwar years of the 20th century was a deliberate spirit of amateurism that valued honor, physical courage, skill in field sports, and, above all, one’s regiment while deprecating professionalism, schooling, and intelligence. The British military was traditionally against book studies. The preference was character over intellect. This preference has always taken the form of denigration of the staff college graduate³⁸ and apotheosis of that splendid chap, the regimental officer.³⁹ For example, General J.F.C. Fuller, while chief instructor at the British Staff College at Camberley in late 1923, requested permission to publish his book on the foundations of the science of war. His request was refused on the ground that the chief of the Imperial General Staff, Lord Cavan, objected to staff officers writing books. Lord Cavan told Fuller that authorship is contrary to discipline for serving officers because it might call the validity of field manuals into question. He also told Fuller not to publish books while he was an instructor. Hence, Fuller asked to reduce his time on the staff from 4 to 3 years in order to publish his work.⁴⁰

Organizational Creativity

In generic terms, *organizational creativity* is best defined as the “creation of a valuable, useful new product, service, idea, procedure or process by individuals working together in a complex social system.”⁴¹ In a military context, organizational creativity pertains to significantly enhancing combat effectiveness of one’s forces through inventing a novel and unique way of arranging levels of command and their constituent elements and thereby opening the way for a nontraditional employment of one’s forces in combat.

Perhaps the most novel and effective way of organizing naval forces for combat is the U.S. Navy's task force concept, used extensively from 1941 to 1945 and still in use today. A task force (TF) was a provisional organization composed of ships and/or submarines and aircraft from different administrative units (squadrons, divisions). It was usually dissolved shortly after the mission was accomplished. The main aim of the TF concept was to enhance operational flexibility. A TF was in turn broken down into several task groups (TGs), and each of these was divided into task units (TUs) with the latter composed of several task elements (TEs). Each TF was assigned a two-digit number (for example, TF 38). TGs, TUs, and TEs were identified by decimal numbers (TG 58.1, TU 58.1.1, TE 58.1.1.2).

Fast carrier groups created in both the Japanese and U.S. navies in the interwar years are another example of how integration of high-strategic mobility and firepower can lead to qualitatively new capabilities through innovative command organization. Carrier groups were capable of theater-wide or operational employment. Another example of successful organizational creativity was the establishment of the first Panzer divisions in the German Wehrmacht in 1935. These divisions included not only tanks but also motorized infantry, artillery, engineers, and signal troops.⁴² This concept was not emulated by the French. The Germans continued their innovative approach in the late 1930s by using Panzer units in close cooperation with the Luftwaffe. In March 1940, the Germans also created the first army-size Panzer formation, Panzer Group Kleist, composed of one Panzer corps and two motorized infantry corps and capable of conducting independent major operations in cooperation with the Luftwaffe. Panzer Group Kleist was part of Army Group A and spearheaded the thrust through the Ardennes in May 1940.

Combat Concepts

In time of peace, various tactical/operational concepts are created for the employment of combat forces in case of hostilities. A *tactical concept* is aimed to employ combat forces to accomplish tactical objectives, while an *operational concept* aims to accomplish operational or, in some cases, partial strategic objectives. These concepts form the heart of the respective tactical and Service/joint doctrine. They are used in planning and execut-

ing tactical actions and major operations/campaigns regardless of the enemy and the place where these actions would occur.

The Soviet Red Army was the leader in the development of theory of operational art in the interwar years. The Soviets developed the so-called deep battle (*dubokoy boy*) concept in 1935, which envisaged forces no larger than corps attacking the enemy simultaneously over the entire depth of fielded forces.⁴³ A year later, the Soviets developed and put into their doctrine an even bolder concept of deep operations (*glubokaya operatsiya*) to be applied at the operational level of war.⁴⁴ This concept was at the heart of planning and execution of (major) operations conducted by the armies and fronts (army groups) and supported by air and airborne forces to launch simultaneous blows throughout the enemy's entire operational depth.⁴⁵ Deep operation was successfully applied in the Soviet offensives on the Eastern Front in 1944–1945.

The U.S. Marine Corps developed an innovative and ultimately highly successful operational concept for conducting major amphibious landings. The document, *Tentative Manual for Landing Operations*, was issued in January 1934. After a series of fleet landing force exercises, it was officially adopted by the U.S. Navy as Fleet Training Publication 167, *Landing Operations*. All U.S. amphibious landing operations in World War II were based on that manual.

The highly successful and novel German air-land battle concept of the late 1930s was relatively simple and highly flexible. The key was using air and ground reconnaissance to locate gaps in the enemy's defenses. Then the weight of main effort (*Schwerpunkt*) would be in that area. The second key element was concentration at the weight of main effort (*Schwerpunktbildung*). Speed, mobility, surprise, and utilization of windows of opportunity were central



U.S. Army

General Eisenhower,
Supreme Allied Commander
in Europe during World War II

elements in the concept. The Panzer forces would penetrate deeply into the enemy rear. They would have little regard for open flanks. The initial aim was to destroy not enemy troops but command posts and supply lines and to threaten lines of retreat. The key to success was the psychological effect of the fast-moving Panzer forces. Often, entire sectors of a front would collapse even though the Panzers penetrated the front at just a single point.⁴⁶

The Air-Land Battle concept of 1981 was an example of an innovative way to employ the U.S. Army's combat arms and

notions.⁵² The best test of creativity is to achieve *surprise*. One of the main methods is a highly innovative deception plan and its skillful execution. Commanders should put themselves in the enemy's shoes and think what course is the least likely the enemy will foresee or forestall.⁵³ The art of warfare rests on the freest application of its fundamentals under constantly changing conditions.⁵⁴

Making a decision and executing it presumes the need for some degree of creativity on the part of military commanders. A military decision is the result of creative thinking. A military decision is often unique

execution.⁵⁸ MacArthur had the rare gift of recognizing the importance of geography and planning his campaigns accordingly. He was well known for his ability to integrate both military and nonmilitary aspects of the situation into his campaign plans. He had the demonstrated ability to think broadly and far ahead. In the initial phase of the Korean War, for instance, his actions were instrumental in saving South Korea from falling under communist rule. After initial setbacks, MacArthur proposed to the Joint Chiefs of Staff a bold and innovative idea to land United Nations forces deep in the rear of the North Korean army at Inchon. The plan was strongly opposed by many officials in Washington because of its high risks. In arguing for his plan to the Joint Chiefs, he stated that he was firmly convinced an early and strong effort behind the enemy's front would sever his main lines of communications and enable U.S. forces to deliver a decisive blow. The alternative was a frontal attack from the Naktong line that could only result in a protracted and expensive campaign to slowly drive the enemy north of the 38th Parallel.⁵⁹ In the end, MacArthur's views prevailed; the amphibious landing at Inchon (Operation *Chromite*), some 150 miles behind the North Korean forces then besieging the Pusan perimeter, was carried out on September 15, 1950. The landing was brilliantly executed, and it quickly led to the collapse of the North Korean forces at the Pusan Perimeter.

Any plan or order should revolve around an overarching idea, known generically as the concept of operations (CONOPS), suggesting how to employ combat forces most decisively to accomplish a given military objective. In operational warfare theory, the term *operational idea* (scheme) pertains to the concept for a major operation or campaign. CONOPS is the heart of any sound plan for the employment of forces. It is developed from the most optimal friendly course of action and is included as an integral part of the commander's decision. A sound CONOPS idea requires ingenuity and creativity on the part of the commander and staff.

A sound CONOPS should describe in broad terms, concisely and clearly, what each force element will do to accomplish the ultimate objective. Among other things, CONOPS should avoid traditional patterns. It should be bold and novel and be speedily executed. It should pose multidimensional threats the enemy has little or no chance of

a creative intellect allows commanders to surprise enemy counterparts and thus render them impotent

air force in a major offensive. It envisaged offensive initial blows carried out from multiple and unexpected directions by both land and air forces against forces deployed in the operational depth of the enemy's defenses. It would be followed by actions aimed at preventing the enemy from recovering. The main idea was to shatter the coherence of enemy forces.⁴⁷ Air-Land Battle remained the mainstay of the U.S. Army's doctrine until the late 1990s.

Creativity in Combat

Creativity of commanders refers to their ability to find workable, novel solutions to problems—to be innovative and adaptable in fast moving, potentially confusing situations. All exceptional military leaders have had a large measure of creative skills.⁴⁸ A creative intellect allows commanders to surprise enemy counterparts and thus render them impotent.⁴⁹ Moltke, Sr., believed that in war, as in art, there are no generally valid norms. In both war and art, rules cannot replace talent.⁵⁰ Success in combat at all levels requires imagination on the part of commanders, who should possess a high degree of creativity in thinking and a readiness to take risks.⁵¹

Creative thinking and *mental agility* refer to commanders' ability to see the whole picture from its individual parts. Leaders should be bold and innovative; they should not use forces in a traditional manner. This means not being fixated on the mechanical or schematic employment of combat forces. To preserve versatility and variability of decisions, commanders should not act according to conventional views and preconceived

and is based on a specific situation that is rarely repeated. Successful commanders should possess a great deal of good common sense, logical thinking, and rational decision-making skills. No plan, no matter how sound, could survive the first contact with the enemy without creativity. Hence, commanders and subordinates must have the mental agility to react quickly when facing unforeseen situations or to take advantage of fleeting opportunities in order to make new decisions based on running estimates of the situation.

The most successful commanders were well known for their unique and creative style in planning and the employment of forces in combat. Moltke, Sr., was renowned for thinking broadly in planning and executing his campaigns in three victorious wars (1864, 1866, and 1870–1871). The key elements in his operational thinking were focusing on meticulous deployment planning, seeking the destruction of the enemy army, giving maximum freedom of action to subordinates, and concentrating forces at the weight of the main effort to effect large envelopments and encirclements.⁵⁵ Like Napoleon I, Moltke, Sr., insisted on quick deployment and achieved the greatest victories by concentrating his armies on the battlefield.⁵⁶ Moltke, Sr., also had a surprising ability to foresee how a situation would develop and to take the right measures, as he demonstrated in his brilliant victories at Koeniggratz on July 3, 1866, and Sedan on September 1–2, 1870.⁵⁷

General MacArthur was one of the most successful Allied commanders in World War II. He was known for his thorough planning, boldness of vision, and energetic

countering successfully. It should surprise and deceive the enemy, further complicating his response. Most importantly, it should be directed at the destruction or neutralization of the enemy's center of gravity.⁶⁰

An example of a creative operational idea was the German campaign in Denmark and Norway in April 1940 (*Unternehmen Weseruebung*—Weser Enterprise) and preceding the first phase of the German campaign in the West from May to June 1940 (Plan Gelb-Yellow). For example, the German operational idea for the invasion of Denmark and Norway in April 1940 was innovative. Never before had anyone attempted to seize positions separated by a wide sea area without obtaining command of the sea first. The Germans envisaged simultaneous and multiple thrusts by ground, sea, and air elements to quickly seize southern Norway and then move north under the protective shield of the Luftwaffe. The operational idea was also bold, and the Germans took rather high risks to mount such a large-scale effort in the face of British superiority at sea and its ability to react quickly to any German landing in Norway. At the same time, the Germans maintained a high degree of operational security, using deception and concealment.⁶¹

In the first phase of their campaign in the West in May 1940, the Germans used combined penetration and single-sided envelopment maneuvers to cut off and destroy the major part of the Allied forces deployed in northern France and Belgium. It was General Erich von Manstein's idea to combine single-sided envelopment with penetration. He selected the Sedan-Dinant sector as the point for a tactical penetration maneuver. This would be followed by an operational single-sided envelopment maneuver extending all the way to the French Channel coast. The aim was to avoid making a frontal attack on the Allied forces as they moved into Belgium, and rather to cut them off in the rear of the Somme River.⁶²

The Allied campaigns in the Pacific during World War II were successful because they included, among other things, some highly creative ideas. In the so-called island-hopping approach, as exemplified by the New Guinea, Solomons, and Central Pacific campaigns, the Allies attacked enemy weaknesses and avoided enemy strengths. That, in turn, greatly enhanced the Allied operational tempo and thereby never allowed the Japanese to recover from their losses.

Not all Allied concepts of operations were creative. In fact, many were quite ordinary. For example, in both the Pacific and European theaters in World War II, the Allies used similar and highly predictable operational ideas for their amphibious landings. That made it considerably easier for the enemy to deduce Allied intentions. It did not lead to defeats largely because the Allies had enormous superiority on the ground, at sea, and in the air in most of the landings conducted. For example, the Japanese, by closely observing and analyzing U.S. amphibious landings, changed their method of conducting anti-amphibious defense from defending the beaches to digging in and establishing several defensive lines farther from the beaches. In that way, they countered superior U.S. firepower and maximized their own advantages. For example, after U.S. troops landed on Okinawa in April 1945 (Operation *Iceberg*), the Japanese offered stubborn resistance in the interior of the island. By the time the last resistance

Godfrey, director of naval intelligence, later became known for his James Bond novels.⁶⁴ In addition to Fleming, Godfrey's naval intelligence department employed a schoolmaster, journalist, collector of books on original thought, Oxford classical don, barrister clerk, and insurance agent along with two regular naval officers, two stockbrokers, and several women acting as assistants and typists.⁶⁵

Conclusion

Creativity is the key element in the successful planning, preparation, and execution of a combat action and ultimately in winning a war. It is directly linked to the art side of warfare, so it requires thorough knowledge and understanding of the true nature of war. Creativity in peacetime is essential to developing sound military organizations, operating concepts, and doctrine, and to educating and training future commanders and their staffs. The need for technological creativity should not be confused with the

CONOPS should pose multidimensional threats the enemy has little or no chance of countering successfully

ended in late June 1945, the Japanese had lost 110,000 men in combat, but they also inflicted heavy losses on the attacker: U.S. battle casualties were 49,000 including 12,500 killed or missing.⁶³

Deception is one of the most important supporting plans. Successful deception is the product of an imaginative story: a series of actions and measures aimed to manipulate enemy intelligence channels so the deception target—the enemy commander—believes what one desires him to believe. Building a story is one of the most complicated yet critical parts of deception planning. The most effective deception story reinforces the enemy's belief in what he already expects, underscoring the critical role of detailed and accurate knowledge of the enemy's perceptions and beliefs that is obtained by intelligence. Experience has shown the great value of using the work of artists such as playwrights or novelists in providing ideas for a deception story. Artists often have more fertile and imaginative ideas than professional officers. For example, many members of the British wartime intelligence apparatus were unorthodox personalities. Ian Fleming, personal assistant to admiral Sir John H.

cognitive aspects of creativity. Experience shows repeatedly that novel technologies by themselves are insufficient to win victories and ultimately wars. New technologies must be followed by creative, corresponding changes in force organization.

The single most important factor is sound integration of new technologies and creative operating concepts and doctrine; otherwise, ultimate success will be wanting. In contrast to the environment for artists and scientists, the military environment poses formidable obstacles to creativity at all levels. Thus, it is incumbent at the highest levels of military and political leadership to create a climate and provide adequate resources for creativity and experimentation. Only through the open and vigorous struggle of competing ideas is it possible to develop and apply sound operating concepts and doctrine. A military organization that restricts or, worse, does not allow free professional discussion is doomed to stagnate in peacetime and to eventually fail in combat. Finally, the German-style mission command should be adopted and applied in both letter and spirit so as to educate and train commanders and staffs to think and act creatively. **JFQ**

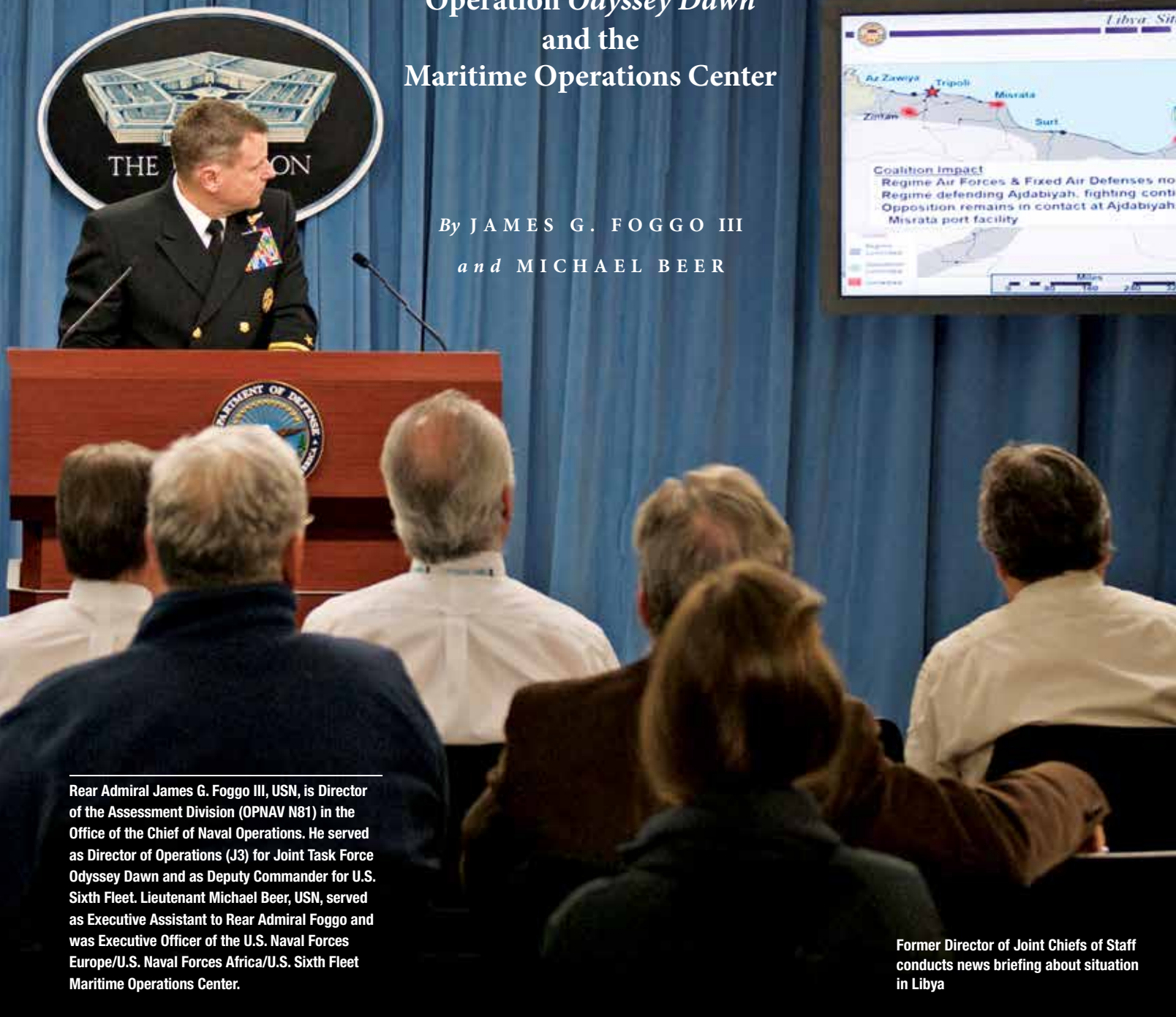
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THE NEW OPERATIONAL PARADIGM

Operation Odyssey Dawn and the Maritime Operations Center

By JAMES G. FOGGO III
and MICHAEL BEER



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Former Director of Joint Chiefs of Staff conducts news briefing about situation in Libya

DOD (Cherie Cullen)

Operation *Odyssey Dawn* (OOD) was the U.S. response to United Nations Security Council (UNSC) Resolution 1973, which called for the establishment of a no-fly zone over Libya and the protection of Libyan civilians from the rampaging security forces of Muammar Qadhafi. The revolt of Benghazi and resulting destabilization of Libya was a product of the Arab Spring movement sweeping through the Maghreb, which had already caused the downfall of Hosni Mubarak's regime in Egypt and the overthrow of Zine El Abidine Ben Ali in Tunisia. Qadhafi responded to local protests with the brute force of his military, an act that quickly prompted the United Nations to determine that without foreign intervention, tens of thousands of innocent civilians could be massacred in direct violation of basic human rights.

The joint forces of U.S. Africa Command (USAFRICOM) were poised to act in defense of Libya's civilians. Unlike previous U.S. joint operations in Afghanistan and Iraq, which permitted the buildup of forces and months of planning, *Odyssey Dawn* was in execution only a month after a U.S. Naval Forces Europe (CNE)/Naval Forces Africa (CNA)/Sixth Fleet (C6F) operational planning group was stood up, and only 15 days after the establishment of Joint Task Force (JTF)–*Odyssey Dawn*. This compressed timeline, the dynamic and shifting environment in Libya, and the U.S. Presidential order of “no boots on the ground” threw the ball directly into the hands of the U.S. Navy. The CNE/CNA/C6F Maritime Operations Center (MOC) reacted superbly in this ad hoc atmosphere due to the education of much of the staff by joint and naval doctrine, as well as good staff planning at the operational level of war.

Operation *Odyssey Dawn* was created as a joint operation under the command of USAFRICOM but saw Admiral Samuel Locklear, commander of CNE/CNA, designated as the commander. Vice Admiral Harry Harris, commander of C6F, was in turn designated as the joint forces maritime component commander (JFMCC). Due to the combined Echelon II/III staff of CNE/CNA/C6F, several personnel were assigned to positions on both the JTF and JFMCC joint manning document. The resulting situation demanded not only flexibility by the personnel, but also, most importantly, the inherent knowledge to move up and down the operational planning

ladder from the JTF commander to component level without missing or misinterpreting each commander's intent.

A joint force air component commander (JFACC), Major General Maggie Woodward, USAF, was assigned to direct the establishment of the no-fly zone under the U.S. Air Force Africa commander. A joint force land component commander was not designated. With the economy of force¹ under the command of the JFMCC, the Joint Operations Center (JOC) of USS *Mount Whitney* was manned almost completely by personnel drawn from the CNE/CNA/C6F MOC.² Its ability to fight and plan at the operational level of war was essential to protecting civilians under attack in Libya.

The dynamic and adaptive planning that took place in the constrained environment of OOD had its origins in the Naval War College's (NWC) Maritime Staff Operators course (MSOC) and Joint Military Operations (JMO) course. NWC created MSOC to provide the baseline knowledge for naval operations and doctrine for officers (O3 to O5) and senior enlisted (E7 to E9) assigned to operational staffs. The requirement for naval officers to complete joint professional military education phase one, which includes the JMO course, adds comprehensive understanding of operational warfare planning and the development of the joint force. As a result of this push forward in specialized education, the C6F staff

was both knowledgeable and ready to undertake the planning efforts required to conduct combat operations during *Odyssey Dawn*.

Another benefit derived from MSOC is the course's use of a full-scale mock “battle lab” that simulates a joint operation in a real-world environment. The lab, complete with a fully staffed “red cell,” allows the students to engage in warfare at the operational level within a secure learning atmosphere, where each decision can be monitored and discussed by qualified instructors. Due to their experiences in the battle lab, JOC watchstanders aboard *Mount Whitney* required little oversight from their senior supervisors and were able to contribute directly to the decisionmaking process.

This confluence of expertise, as well as the general creativity of young officers serving among the multitude of operational planning teams during OOD, enabled the staff to provide concise new ideas for course of action (COA) development, which was always in flux based on the evolving situation in Libya. Whereas the NWC curriculum for MSOC and JMO presents the execution of an operation over a timeline of weeks to months, OOD demanded a compressed timeline of hours to days due to the nature of the uprising and the swift response of Qadhafi's security forces. Junior officers assigned to the JOC were instrumental in ensuring that senior officers of the JFMCC and JTF staffs could



Students and faculty members participate in Naval War College Maritime Staff Operators course, Newport, Rhode Island

U.S. Navy (Matthew Breen)

meet this condensed timeline to achieve mission requirements.

President Barack Obama's "full spectrum of options" approach to the Libya situation, as well as his "no boots on the ground" policy, presented several unique planning challenges that the JTF staff had to overcome. These two policies placed both broad constraints and restraints on the effort. On the one hand, the JTF was required to develop multiple COAs that covered every possible option regarding operational warfare while removing the land component in the joint operational construct. As a result, the JTF COAs became much more naval- and air-centric, with a focus on degrading Qadhafi's military infrastructure while maximizing the protection of U.S. forces. Once again, a dynamic and adaptive approach to planning was required to reduce the risk to the units conducting tactical operations.

The rapidly shifting operational environment in Libya was similar to the initial situations in Afghanistan and Iraq; however, the scope of UNSC resolutions placed multiple and wholly unique limitations on JTF planning. The end result of JOC planning efforts was the destruction of much of Qadhafi's air defenses and military infrastructure through tactical employment of Tomahawk cruise missiles and strike aircraft, which protected the civilian population of Libya and allowed for a successful transition to North Atlantic Treaty Organization (NATO) command.

The role of the U.S. Air Force, under JFACC control, was vital in the tactical strike, aerial refueling, and suppression of enemy air defenses during every stage of the campaign. Admiral Locklear, making his intentions clear from the beginning, would not fly a strike mission without Air Force F-16 or Navy E/A-18G aircraft to support the bombing runs and jam the Libyan force's early warning radars and surface-to-air missile defenses.

Compounding the difficulty of the aerial strikes was the lack of a carrier strike group in the Mediterranean Sea. As a result, the JFACC staff had to flex to meet multiple mission requirements while flying out of coalition airbases scattered throughout Italy, Germany, and Greece. The ability of the JFACC staff in planning for the air logistical requirements allowed an average of 140 tanker runs to be flown each night during strike operations, supplying approximately

2.5 million pounds of fuel to the strike and jamming aircraft conducting missions overland. This heavy fuel consumption rate was driven by the distance each aircraft was required to fly from coalition bases in Europe to designated targets. Without the dedicated personnel serving in the JFACC staff, the strike campaign would not have succeeded with such excellent results.

intelligence because partner nations operated on different communication circuits). In the future, JTFs and other operational staffs must ensure that better protocols for information-sharing are promptly in place, and compatible communication paths should be practiced and rehearsed by international partners in specific geographical regions, ultimately facilitating the sharing of classified

a major infusion to the JOC's intelligence preparation and development was social media

Operation *Odyssey Dawn* produced several lessons learned concerning operational warfare that were new to the joint planning process. A major infusion to the JOC's intelligence preparation and development was social media, which provided a unique and useful tool for the Intelligence Community. The JTF J2 (Intelligence) staff was able to follow open-source Facebook and Twitter posts by civilians in places where the environment was constantly in flux (for instance, Benghazi), which they corroborated with standard classified intelligence sources, to present an accurate and timely picture to the JTF commander and planning staff. The exploitation of this technology and its incorporation into the intelligence process allowed the staff to stay ahead of the changing situation on the ground without the benefit of first-hand accounts normally provided by a land component.

Finally, although Operation *Odyssey Dawn* was successful in protecting the civilians of Libya under attack by pro-Qadhafi forces, the operation was *not* intended to continue under unilateral U.S. control, but rather was to transition to a coalition effort under the command of NATO (Operation *Unified Protector*). For this transition to take place in a timely and seamless manner, the OOD staff needed to communicate with NATO across the entire range of operational warfare from intelligence to operations already in execution. Two major drawbacks in the transition were foreign disclosure protocols (these held vital yet classified information and intelligence concerning the ongoing operation that could not be shared with certain nationalities) and actual communication hardware on the USS *Mount Whitney* (even though classified information could be released to the international partners, it was extremely difficult for the JTF staff to discuss this

material. Operation *Odyssey Dawn*'s transition to Operation *Unified Protector* provided the necessary ignition to combat this issue.

In the end, the JTF staff capacity to adapt to an extremely fluid situation with several limitations on its multiple mission sets allowed for a much more timely and efficient decisionmaking process for OOD senior leaders. This capability was fueled through the professional education that many of the officers had undergone, prior to their assignment, in an MOC, as well as the general characteristic of "thinking outside the box" that the U.S. military attempts to instill within the culture of its officers and leaders. As a result of this education, training, and adaptability, U.S. Africa Command and Joint Task Force-*Odyssey Dawn* were able to execute the mandates contained within the UNSC resolutions for the civilians of Libya while creating a new paradigm for operational warfare. **JFQ**

NOTES

¹ The economy of force included Expeditionary Strike Group Five with 26th Marine Expeditionary Unit embarked.

² The USS *Mount Whitney* is flagship of the Sixth Fleet and contained both the joint task force and the joint forces maritime component commander staffs.



Lake Turkana Wind Power Project has agreed to construction of wind power towers in northern Kenya

ENERGY DIVERSITY AND DEVELOPMENT IN KENYA

By ALBERT KIPROP KENDAGOR and RICHARD J. PREVOST

The overall national development objectives of the government of Kenya are economic growth; increasing productivity of all sectors; equitable distribution of national income; poverty alleviation through improved access to basic needs; enhanced agricultural production; industrialization; accelerated employment creation; and improved rural-urban balance. . . . The realization of these objectives is only feasible if quality energy services are availed in a sustainable, cost effective, and affordable manner to all sectors of the economy.¹

Since its independence in 1963, Kenya has been important to U.S. regional interests. Its significant role with the United States has increased as America has developed counterterrorism policies, sought stability in East Africa, and recognized Kenya's role in the region.² The 2007 election crises, its resolution, the drafting of a new constitution, and the ongoing role of Kenya in combating terrorism underscore its regional importance. The 2013 election, while contested in the Kenyan legal system, did not result in significant conflict. The United States congratulated the Kenyan people on conducting

a peaceful election.³ It is axiomatic that a stable, economically developing Kenya will in turn promote stability in the region.⁴ Political or economic distress in Kenya not only discourages foreign investment but may also impact the stability of neighboring countries.⁵ Energy diversity will help promote political and economic stability. This article reviews Kenya's current energy posture with a focus on rural Kenya, discusses the various sources of energy available to the nation, discusses Kenya's current national energy structure, and makes policy recommendations intended to assist its energy generation and distribution.

Like all countries, Kenya relies on energy for development and growth. In 2004, Kenya created a national energy policy and has subsequently made laudable efforts to

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address the development of energy sources and transmission. Until recently, the available forms of energy in Kenya have been limited to renewable sources. While the country has recently developed further prospects for hydrocarbon energy by way of hydraulic fracturing,⁶ at this time it produces no oil of its own and relies on imported oil from the Middle East, the Maghreb region, and central Africa. An agreement to develop a new pipeline—which could potentially aid both Kenya and South Sudan—from South Sudan to Mombasa was signed in January 2012.⁷

Kenya's Current Energy Posture

In larger towns, cities, and commercial centers, energy from imported oil is a significant source of power for domestic and industrial activities. Electricity generation from oil is supplied to the national grid. However, only about 6 percent of all Kenyans have access to the national grid.⁸ In rural areas, oil might be used for electrical generation; however, the availability of oil and refined oil products in these areas is much less than in developed ones. In these areas, the population and energy demands are less. Biomass, specifically wood, is by far the most widely used renewable fuel. Currently, the wood-fuel deficit exceeds 5,000 metric tons and is expected to grow. This excessive demand for wood fuel continues to lead to deforestation, forest fragmentation, and land degradation, and threatens water catchments.⁹ Moreover, the national demand for energy is projected to greatly increase by 2030. In response to this increase, the government must devise creative means to develop more energy sources and improve energy efficiency.

The government has recognized the differences between urban and rural energy supply and demand, the current limitations on the availability of infrastructure, and the potential for renewable energy. It has developed a national framework called Vision 2030, and it has recognized millennium development goals to bring energy to rural areas. To succeed, Kenya's government and private sector must cooperate to promote energy generation and disbursement programs.

2006 Energy Act

The 2006 Energy Act established an energy regulatory commission with a mandate to regulate the energy sector.¹⁰ Under this act, the Ministry of Energy must:

- develop and manage a comprehensive national energy efficiency program based on education, innovations, and incentives, focusing on reducing energy demand through sustainable-use education projects

and the promotion of efficient, cost-effective appliances and technologies¹¹

- promote cogeneration and sales to consumers¹²
- establish a rural electrification program, create a commission to assist with this program, and envision a funding scheme to help support electrification.¹³

The Role of Energy in the Economy.

The most recent draft of Kenya's national energy policy recognizes the key role that energy plays in the nation's economic development. For example, it notes that the energy sector contributes about 20 percent of the nation's overall tax revenue; that Kenya imports all of its crude petroleum requirements, which accounts for about 25 percent of its national import bill; that Kenya's one refinery meets about 40 percent of local demand; and that energy prices in a liberalized market are a significant determinant of the nation's competitiveness.¹⁴

The policy emphasizes renewable sources of energy to meet the national vision and millennium development targets. Policy Paper No. 4 of 2004¹⁵ and the Energy Act of 2006, respectively, are the Kenyan policy and legal frameworks for energy development. Through these documents, the government expresses its commitment to promote electricity generation from renewable energy sources. Further support for renewable energy development can be seen in Kenya's efforts to obtain outside funding. Kenya is one of six countries selected by Climate Investment Funds for their targeted program "Scaling Up Renewable Energy Program [SREP] in Low Income Countries."¹⁶

Feed-in Tariff. Kenya has formulated a feed-in tariff (FIT) policy to promote the generation of electricity using renewable energy resources and to improve the rating of its renewable energy sector. By using FIT, the government hopes to make Kenya an attractive destination for substantial private sector investment.¹⁷ The tariff makes it mandatory for companies transmitting energy to purchase electricity from renewable energy sources at a predetermined price. Renewable energy producers then have a guaranteed market, and, if the pricing mechanism is correctly gauged and equitably adjusted to reflect changes in cost, these companies will receive an attractive return on investment for the electricity they produce.

Under the FIT system, investment security and market stability are provided for investors of electricity generation from renewable energy sources. This is done while encouraging private investors to operate their powerplants prudently and efficiently

to maximize returns. According to Policy Paper No. 4 on energy, the national energy policy "is to ensure adequate, quality, cost effective and affordable supply of energy to meet development needs, while protecting and conserving the environment."¹⁸ This policy facilitates the exploitation of abundant renewable energy sources available in the country. The feed-in tariffs were introduced in 2008 and revised in 2010 to accommodate additional renewable energy.¹⁹

Kenya and Oil. The country has several sources of renewable energy that can be exploited and supplement oil. However, importation of foreign oil will be necessary for the short and medium terms. The country imports oil both for domestic use and for subsequent export as a refined product. The nation's one refinery at the port of Mombasa has two distillation units. Next to the refinery, a pipeline was built that can transport product through the middle of the country to the Kenya-Uganda border. Rural Kenyans and those on the outskirts of cities use kerosene and liquefied petroleum gas for lighting and cooking.²⁰

Plans have been announced to extend the aforementioned pipeline into Uganda and to construct another pipeline from the port of Lamu to South Sudan and Ethiopia.²¹ These pipelines, along with over-the-road transport, are the major source of transport of refined petroleum products. Inland depots have been established in every major town along the national highway. The proposed pipelines, connected to depots, would allow products to reach consumers faster and more efficiently relative to road transportation. The second port at Lamu will have several berths and supporting infrastructures and could not only improve the energy sector but also spur regional economic growth.²²

Renewable Sources of Energy

Kenyan sources of renewable energy are diverse and at varied stages of development. Hydropower generation is by far the largest source of renewable energy supporting commercial and industrial manufacturing.²³ Hydropower currently generates 57 percent of national electricity.²⁴ There are seven hydroelectric generating plants set along two major rivers, the Tana and Turkwel. The power generated is transmitted to the national grid for further distribution.

Geothermal energy is a renewable energy source with great promise. In Kenya, geothermal energy involves tapping geysers and channeling steam through pipes to turn turbines and mainly has been developed along the Rift Valley.²⁵ Currently, geothermal energy converted to electricity contributes

approximately 15 percent of Kenya's electric energy to the national grid.²⁶ According to the Ministry of Energy, geothermal generation has great potential for development: "Olkaria currently hosts three geothermal power plants. Once new geothermal power plants at Olkaria and Menengai are commissioned, notes [Permanent Secretary Patrick M.] Nyoike, geothermal power capacity will increase by 490 [megawatts]. Kenya is one of the few African countries that [has] successfully tapped geothermal energy."²⁷ Geothermal expansion builds on the concepts of Vision 2030 and is intended to promote the government and the private-sector partnership program.

For Vision 2030 to materialize, Kenya needs more than 10,000 megawatts of electrical (MWe) output, and of this, a minimum of 5,000 MWe is expected to come from geothermal sources. Kenya's geothermal potential is in excess of 7,000 MWe spread over more than 14 locations. This opens new investment opportunities from supply of equipment to construction of powerplants; the planned developments are enormous and the Geothermal Development Company is committed to facilitate and stimulate investor entry²⁸ and will drill wells and absorb some of the costs that usually would be incurred by private companies.

Wind energy in Kenya relies on windmills that are erected along the wind path. This source has huge potential as the country experiences strong winds throughout the year. The average wind speed in Kenya is 3 to 10 meters per second, and the country has several sites conducive to wind energy. The most recent national energy policy envisions at least 1,000-MW wind-generation capacity by 2016.²⁹ The Ministry of Energy—jointly with private investors—has carried out extensive feasibility studies in the Northern Province and construction is due to commence around Lake Turkana.³⁰ The Lake Turkana Wind Power Project aims to provide 300 MW of reliable, low-cost wind power to the Kenya national grid, equivalent to approximately 20 percent of the electricity generating capacity currently available. The project is of significant strategic benefit to Kenya and, at a cost of KSh75 billion (\$893 million), will be the largest single private investment in the country's history. The wind farm site in northeastern Kenya covers 40,000 acres and is located in Loyangalani District, Marsabit West County, approximately 50 kilometers north of South Horr Township. Data collected and analyzed since 2007 indicate that the site has some of the best wind resources in Africa, with consistent wind speeds averaging 11

meters per second and from the same direction year round.³¹

Solar power also offers potential as a renewable energy source. Solar power is most prevalent in the outskirts of large towns and rural areas. It has huge potential considering that much of the country enjoys sunlight throughout the year. Unfortunately, this source does not currently contribute any electricity to the national grid. Instead, solar energy is consumed at the generation site or in close proximity to it. It is estimated that close to 500,000 homesteads in Kenya use solar power to heat water. The government is committed to making serious efforts to expand this resource.³² Private-sector firms and individual entrepreneurs, to some extent supported by both governmental and nongovernmental organizations, are responsible for the development of solar energy. In fact in 1995, Richard Acker and Daniel Kammen reported that 20,000 to 40,000 small photovoltaic systems had been installed in Kenya over the previous decade.³³ In more recent decades, Kenya has registered additional increases in the use of solar power. This effort is a continuation of past policies.

The widespread introduction and adoption of renewable energy technologies remain high on virtually every national development policy agenda; renewable energy systems can assist national energy autonomy, decentralize resource management, promote environmental conservation, and serve as a means to reduce global warming.³⁴

Biofuels are among the most promising alternatives to fossil fuels, and Kenya is making significant efforts to develop them. Many farmers are encouraged to invest in nonedible plants that have high yields.³⁵ This resource remains underdeveloped, and the government has identified it in the Vision 2030 development plans.³⁶

The last common source of renewable energy is biomass. This source, which involves the use of firewood and pulp, is by far the oldest in Kenya and the most widespread source of energy in the rural areas. It is the major cause of deforestation, with great adverse effects on the environment and long-term economy. In fact, the country has lost forest cover from 9 percent at independence (1963) to a mere 3 percent today.³⁷ The government faces great challenges in trying to curb the use of biomass; it meets up to 70 percent of Kenya's final energy demand and provides for more than 90 percent of rural household energy needs—with approximately one-third in the form of charcoal and the rest from firewood. It is estimated that 80 percent of urban households' wood-fuel demand is met by charcoal.³⁸

The development of nuclear energy is recognized as another source of power that will be considered in the future.³⁹ Many experts have long believed that nuclear energy is the best cure for the seasonal vagaries that tremendously affect the nation's hydropower generation.⁴⁰ Notwithstanding the high initial costs, safety concerns, and technical skills required to acquire nuclear power, there remains a strong national will to pursue this option. According to the Ministry of Energy, the government is considering building a nuclear powerplant.⁴¹ Developing local and national expertise in the nuclear field will be a challenge as will addressing the issue of spent nuclear fuel. These challenges are made more acute given Kenya's plan to be a nuclear energy generating nation by 2030.

Analysis

Kenya has enormous energy opportunities and supply challenges as it faces increased energy demand. In 2009, the country separated the generation and distribution of electricity. Since then, two national companies have operated as separate entities. Kenya Generating Company is the major supplier of electricity to the Kenya Power Lighting Company. There are, however, other privately owned suppliers that produce and supply power to the national grid. Kenya now encourages the private sector to invest in this area, which has been dominated by the government for perhaps too long.

The government must account for the varying impacts of energy generation on the environment, but impacts from energy generation are difficult to measure, and it remains to be seen whether there is political will to measure the ecological damage caused by human activities associated with energy production and to measure the interference with ecosystems. Kenya desires to encourage investments in clean energy to augment the current energy sources to meet increased energy needs.⁴²

In addition to encouraging energy development investment, the government has tried to increase the efficiency of energy production. Greater efficiency can be achieved through acquisition and installation of modern equipment. Significant energy loss occurs from the transmission of energy from generating plants to the national grid—the old technology appears to be the major source of seepage, and modernization may go a long way toward alleviating this loss.

Once energy enters the national grid, Kenya Power and Lighting distributes that energy. The customers can be classified as government, multilateral institutions, nongovernmental organizations, corporate insti-

tutions, and individuals. Jointly with the private sector, the government has begun to support the generation and efficient distribution of energy to rural areas. Where this has been done, there has been a positive economic impact. Over the last 10 years, government-, private-, and nongovernment-supported Kenyan efforts have extended electricity to more than 8 million homes. The SREP initiative and private sector have been instrumental in carrying out surveys and financing installations of the renewable sources of energy.⁴³ This expansion of electricity distribution and the ongoing effort to develop pipelines may provide the most immediate positive return on investment.

Also, Kenya has been successful in monitoring and estimating energy waste. Many sectors are improving their energy efficiency to reduce consumption without affecting their production. The sectors leading this effort are motor, chemical, and food-processing plants. According to the Kenya Association of Manufacturers, these savings will reduce consumption by significant margins, between 20 and 50 percent.⁴⁴ These efficiency efforts will help improve Kenya's competitiveness, especially if these efforts can be made regarding cement, steel, pulp, and paper production.⁴⁵

Other exogenous challenges and externalities arise as Kenya tries to develop and implement its energy programs. Globalization affects the energy sector in terms of the demand, supply, and prices. Additionally, rule-of-law and security issues can make it difficult to do business in neighboring economies; the effects of regional and national security challenges can cascade down to the citizens, businesses, and local communities. Overall, Kenya has been relatively stable; however, the recent violence in Mombasa—and past violence associated with the transition of government—make one realize how fragile a nation can become and how security is a necessity.⁴⁶

Members of MEND, the Movement for the Emancipation of the Niger Delta, moving fast in heavily armed speedboats, evaded security and launched an attack on Bonga, the most prominent of all oil platforms, 70 miles from the shore. Group members managed to climb onto the platform, but they were repelled before they could blow up the computerized control room. It was a close call, and a scary one. The Bonga attack sent shockwaves throughout the market. In an email to journalists, a spokesman for MEND warned, "The location for today's attack was deliberately chosen to remove any notion that offshore oil production is far from our reach."⁴⁷



Conveyor drill with linkage pump at rear of geothermal powerplant in Kenya

Likewise, global and regional impacts because of attacks on Kenyan pipelines, its power grid, or/and infrastructure would have adverse effects. Electricity-generation companies that import and use oil as a steady source of fuel would have to reduce or stop production if that source of oil is interrupted. Loss of the grid would produce electricity shortages, disrupt production of manufacturers, and cause price instability to the producers and consumers that rely on the grid. Reduced electricity, even if controlled by scheduled brownouts, would have cascading effects. Higher unit prices for electricity are not only directly passed on to consumers in towns and rural villages, but they are also indirectly passed on to higher prices for consumer goods.

Rural Electrification

The rural electrification program continues to encounter many constraints. Generating companies often use old technologies for the production and generation of power. The antiquated technology results in waste and inefficiency of between 10 and 30 percent. The unit of energy produced is not economical. Infrastructure support, even when there is a strong desire to conduct maintenance, is another difficult constraint. Kenya does not have sufficiently developed road networks in rural areas, and this hampers private companies accessing their equipment. Many investors are discouraged by dilapidated or nonexistent roads.

There is a chicken-and-egg aspect to rural electrification as it relates to the area's

economic capability. The lower individual incomes in rural areas result in relatively lower purchasing power. Thus, fewer people and small enterprises in these areas can afford installation. Low purchasing power has the corresponding effect of further depressing the rural customer base for operators, and is one of the limiting factors to what can be charged for electricity. Lack of electrification impacts how much the local population can produce and reduces purchasing power. There is an economy-of-scale issue in rural areas that reduces operators' margins and makes it difficult to spread out the risk of providing electricity. The operators see greater risk as there is a lower per capita income and greater per capita operating costs because there are fewer consumers. Consequently, only a limited number of operators are willing to invest in these areas.

Legal and environmental challenges may delay the smooth implementation of the electrification program. In rural areas, transmission lines must be installed either underground or overhead. In either instance, companies are obliged to acquire rights of way in rural areas whereas in urban areas, rights of way may have been previously established. National regulations and protocols must be complied with, but they may serve to slow development or rural electrification. Conservation areas, such as important historical sites and aquatic and ecological areas, must remain protected or at least weighed against the value received from rural electrification programs.



Workers at Olkaria Geothermal Power Plant, Kenya

Wikipedia

Also, the hydroelectric generation intensity of Kenyan energy creates some risk for potential rural electrification. Erratic patterns of seasons and variable climatic conditions have put huge limitations on hydroelectric capacity. One current debate is whether Kenya's economic planners should anticipate, and to what extent, permanent climate change.

Policy Recommendations

Public and private recognition of the value of energy generation and distribution in Kenya is becoming widespread. There is huge potential for planned, stable development, and, at the same time, there are numerous challenges and negative externalities that must be addressed. First, the government has recognized that rural Kenya does not have all the characteristics of a pure market, so government intervention and encouragement are planned. The rural electrification program is a laudable goal and should be pursued. The program should be people-driven, meaning that the local population must be educated and involved in the formulation and decisionmaking process. Such involvement will not only promote ownership and sustainability but also build capacity for skills and technology transfer.

Second, we strongly recommend the modernization of electric generation equipment and transmission lines. For example, in many hydroelectric plants, older generators are still being used. Only one-third of

the energy generated reaches the consumer. Additional loss is due to pilferage, broken and poorly maintained lines, and aging transformers.

Third, the government should provide greater focus on generating energy from the nation's many renewable sources of clean energy. For example, in addition to feed-in tariffs, the government could provide tax incentives for private developers willing to be part of the rural electrification programs. The private sector may be leveraged through other incentives. Tax policy could encourage the importation of solar panels, wind turbines, and other key energy accessories. Wind remains readily available, and the government ought to encourage entrepreneurs to deploy windmills at appropriate locations, such as around Mombasa, Chulu Hills, and the Kapiti Plains. Encouragement could come in the form of not only tax incentives but also government-sponsored development of infrastructure that allows greater distribution of electricity generated from wind.

Fourth, individuals and local entities should be encouraged to invest in smaller domestic windmills for off-grid consumption at the villages. Notwithstanding these efforts at the rural level, the government should consider investment in wind sources through installation of massive windmills capable of integration to the grid. The Lake Turkana wind farm in northern Kenya is a good example. We see the government, perhaps with international backing, as taking the lead

in this effort, but public-private ventures may also be lucrative if properly incentivized.

Fifth, the nation needs to address the future role of biomass energy. This energy use has been detrimental to Kenya's limited forests. Adverse impacts of biomass energy on the environment remain a major concern, and the government should take measures to reduce, over time, the use of biomass as an energy source. The government should revise the environmental regulations through the newly commissioned National Environment Management Authority. In view of the forest degradations, the government should consider, in addition to regulations, incentives for the use of natural gas and kerosene through tax exemptions to make them affordable. The government should ensure availability of fuels that can be used in lieu of biomass. Finally, the government should encourage sensible reforestation where the climate can support it.

Conclusion

Kenya is a key nation to building stability and prosperity in East Africa. The United States has an interest in a stable Kenya that is involved in counterterrorism, continues to develop democratic institutions, and supports its neighbors. Kenya has huge potential for economic growth and development, and its rural electrification programs are important in achieving this potential. Joint public-private partnership programs can help provide rural electrification. As the government leads through deregulation and tax policy, it will help leverage the private sector. Ever-increasing energy demands require a continuation of the paradigm shift that has begun, from acceptance of intermittent energy supply to one that embraces advanced technology, a variety of energy sources, greater efficiency, and is friendlier to the environment.

Kenya's opportunities for becoming more energy self-sufficient lie in energy diversification. We see this diversification as requiring the development of renewable forms of energy and, potentially, the development of nuclear power. The rural electrification program should be people-driven, meaning that the local population must be educated and involved in the formulations and decisionmaking process. Such involvements would not only promote ownership and sustainability but also build capacity for skills and technology transfer. Negative impacts of energy development on the local environment can be significantly controlled through economic empowerment and education of the citizens. State infrastructure development in rural areas must be prioritized in

order to incentivize the private sector. But first, the private sector and the government must educate and respond to the needs of the local citizenry. It can then put in place vibrant, actionable plans to provide energy, develop the local economy, and reverse deforestation and desertification. **JFQ**

NOTES

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Second Fronts

FACTORS IN SUCCESS AND FAILURE AND IMPLICATIONS FOR THE FUTURE

By PHILLIP S. MEILINGER



U.S. Army

U.S. bomber hits mark deep in Germany

Some argue that the best way to confront an enemy is to face him head on. At times, however, a belligerent realizes that he cannot strike the enemy directly because he is not strong enough, it involves unacceptable risks, or he believes greater gains can be made by opening a “second front.” The purpose of second front operations may be to strike a blow to enemy strength, gain resources such as oil while denying them to the enemy, split the enemy alliance by knocking out a weaker member, assist an ally under attack by diverting the enemy, or influence a third party, perhaps deterring that party from entering the war.

Following are four examples of such second front maneuvers. Two succeeded and two failed. These operations have implications for the way America will fight for the foreseeable future. Our wars are now wars of choice, and the motives and constraints driving such conflicts are comparable to those of belligerents seeking to open second fronts throughout history.

The Sicilian Expedition During the Peloponnesian War

The Peloponnesian War between Athens and Sparta was in its 16th year when Athens decided to invade Sicily. Its rationale for invasion concerned Egesta—a city-state in western Sicily allied with Athens. It was being harried by Selinus, a nearby city, and asked the Athenian Assembly to send aid while also warning of Syracuse, the most powerful city-state on Sicily. Syracuse, the envoys claimed, was bent on dominating the entire island and was friendly toward Sparta. This meant that Sparta would have access to huge resources in grain, soldiers, and ships, resources that could be used against Athens.¹

Such catastrophizing on what *might* occur was hardly a justification for war. Nonetheless, the Athenians, led by a gifted scoundrel named Alcibiades, pushed for an invasion of Sicily to defeat Syracuse and conquer the island.²

Nicias warned that an expedition made little strategic sense. It would anger Sparta,

which had an uneasy truce with Athens, and involve a major war with Syracuse, a useful trading partner. The expedition would involve enormous risk but offer little gain. In a prescient comment, Nicias stated: “I affirm . . . that you leave many enemies behind you here [the Spartans and their Corinthian allies] to go there far away and bring more back with you.”³ Nicias urged his fellow citizens to focus on Sparta, the main threat close at hand. Alcibiades argued instead that Sicily would be an easy conquest that would heap glory on Athens while intimidating Sparta. Alcibiades was the more persuasive.⁴

The invasion was launched in 415 BCE. Nicias, Alcibiades, and Lamachus were chosen as joint commanders, and 136 warships—carrying 5,100 hoplites but only 30 horses—set sail.⁵ Soon after landing in Sicily, Alcibiades was recalled to Athens to stand trial on charges of blasphemy.⁶ Believing he would be found guilty, Alcibiades fled to Sparta and offered his services.

second front maneuvers have implications for the way America will fight for the foreseeable future

Thucydides argues that had the Athenians moved quickly, they would have overcome Syracusan resistance. Instead, they dallied, partly because of Alcibiades’s recall and partly due to the cautiousness of Nicias. Things quickly turned sour. Egesta did not have the promised money. Horses were in short supply so the army had little cavalry. The Sicilians did not welcome their liberators and instead the Athenian force united Sicily as nothing else could have.⁷ The Syracusans proved tough adversaries, especially after Sparta sent one of its generals, Gylippus, to assist them, along with a contingent of Corinthian hoplites. Sparta then invaded Attica, the area surrounding Athens, and laid it to waste. As Nicias predicted, Athens was fighting a two-front war against two formidable opponents.

Nicias, the sole commander after the departure of Alcibiades and the death of Lamachus in battle, continued to delay, pleading for either reinforcements or evacuation. The Assembly sent another army but it made little difference. In 413, Gylippus defeated the Athenians, Nicias was butchered, and at least 7,000 Athenians were captured and enslaved. It was a horrendous loss.⁸

Athens saw this as a preventive war to abort the presumed union of Sicily and Sparta against it. But there was little indication such an alliance would have occurred. Indeed, it was the expedition itself that drove Syracuse into the arms of Sparta.

Wellington in the Peninsula

After the Peace of Tilsit in 1807, Napoleon controlled most of Europe. Britain still held out, and in an effort to break its economy, Napoleon instituted the Continental System. He ordered Europe not to trade with Britain, hoping this policy would so injure the British economy as to force surrender.⁹ A tiny country on the periphery of Europe, Portugal, refused to obey Napoleon’s decree.¹⁰ To teach it a lesson, the Emperor sent 30,000 men to conquer it, and they took Lisbon on November 30, 1807.

Napoleon then installed his brother Joseph on the Spanish throne. To his surprise, the Spanish population rose up against him

in May 1808. This resistance movement, one of the bloodiest and most effective guerrilla wars in centuries, became a long-term drain on French resources. The “Spanish Ulcer” lasted for 6 years.¹¹

The French army sent to pacify Spain initially numbered 120,000 and was led by proven commanders. In July 1808, however, an army of 18,000 surrendered to the Spanish at Bailen. Europe was stunned; it was the first surrender by a French army in 7 years. Napoleon was furious: “I realize that I must go there myself to get the machine working again.”¹² By October 1808, he would have 270,000 men in Iberia.

A British army under Lieutenant General Arthur Wellesley landed in Portugal in 1809 and built formidable fortifications there. From this sanctuary he repulsed French assaults.¹³ Wellesley was aided by the tenacity of the Spanish army, which struck continually at the French and their supply lines. Indeed, 70 percent of all French casualties sustained during the war were inflicted by the Spanish army and guerrillas.¹⁴ Throughout 1810 and 1811, Wellesley (soon to be the Duke of Wellington) coordinated with the Spanish to pressure the French.

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Royal Navy

Panoramic view of Dardanelles Fleet, 1915–1916

It was a hard-fought war, but everything changed in 1812.

Napoleon invaded Russia that year with an army of 500,000. Iberia was then a sideshow. Wellington invaded Spain and over the next year won a series of battles, liberating Madrid in August. The following year, Wellington crossed through the mountains and invaded France. By then Napoleon was fighting for his throne in Germany, a fight he would soon lose.

Napoleon's foray into Iberia was a huge miscalculation. The French suffered 250,000 casualties, a high price for a failed effort. At the same time, the war occupied 200,000 troops annually that France desperately needed against Russia, Austria, and Prussia in Central Europe. Spain was truly an ulcer that bled the Napoleonic Empire white.

Gallipoli, 1915

World War I deteriorated into a blood bath by the end of 1914, and a line of trenches stretching from the North Sea to Switzerland induced a stalemate.¹⁵ Britain suggested breaking the impasse by opening a second front. The First Lord of the Admiralty was Winston Churchill and the First Sea Lord was Admiral "Jackie" Fisher.¹⁶ Their plan was a move against the Dardanelles, the narrow strait separating the Mediterranean from the Black Sea. Constantinople (modern-day Istanbul), the capital of the Ottoman Empire, was located along this waterway. Churchill opined that a move up the strait would push the Turks out of the war. That would in turn open a supply line to Russia and allow a venue from which to strike Austria-Hungary from the rear.

Churchill believed a navy-only operation would suffice to force the strait.¹⁷ This passage was flanked on the north by the Gallipoli Peninsula and on the south by the Anatolian mainland. Both coastlines were littered with forts and artillery positions.¹⁸ Nonetheless, he thought the big guns of battleships

would quickly silence the enemy cannon. The strait was also heavily mined. No matter, the armada would include minesweepers to clear the way. The battleships would confront Constantinople and shell it if necessary and then accept the Ottoman surrender.

A fleet was raised consisting of 82 ships including 18 battleships.¹⁹ On February 19, 1915, warships entered the strait and began shelling the forts. It was expected the enemy guns, numbering over 230, would be silenced by naval gunfire within a month. That first day, however, *no* enemy guns were destroyed despite a barrage lasting 7 hours.²⁰ Several more forays were launched into the straits but achieved meager results. Clearly, naval gunfire was insufficient to knock out heavily defended forts.

On March 18, 1915, the ships went in again but this time they hit mines. Three battleships were sunk and three others were heavily damaged. A third of the Allies' capital ships were put out of commission in a day. Attempts to remove the mines at night were unsuccessful. The Turks used searchlights to illuminate the trawlers being used as minesweepers and shore guns drove them back.²¹

A naval-only operation was thus impossible. Churchill then requested an invasion force to capture the Gallipoli Peninsula and overrun the forts from the land side. The fleet could then move safely through the straits. Fisher agreed, arguing that the British effort must be *totus porkus* (whole hog).²² The high-gain/low-risk navy-only assault had now become a high-risk joint operation.

In April 1915, a force of over 62,000 British and French soldiers landed at Gallipoli.²³ They were met by rugged terrain, strongly entrenched positions, and spirited and well-led Turkish defenders. For 8 months, the opposing sides hammered away at each other. Trenches were dug, barbed wire was strung, and the Gallipoli battlefield resembled the Western Front that the entire operation

was intended to bypass. Five more Allied divisions were sent, to no avail. Admitting defeat, the Allies evacuated in December 1915.

Overall, the Gallipoli operation was a disaster for the Allies. It cost nearly 400,000 casualties and gained virtually nothing. The Ottoman Empire remained in the war, Russia remained largely cut off from its allies, and the Western Front remained stagnant.

North Africa, Operation Torch, 1942

When the United States entered the war against Germany in December 1941, Allied fortunes were at low ebb. Most of Europe was under Axis control and the Soviet Union was reeling. In the Pacific, Singapore was about to fall to the Japanese as were the Philippines and Dutch East Indies. The Allies needed victories.

The American and British combined chiefs of staff met, confirmed a "Europe First" strategy, and discussed taking the offensive. General George Marshall, the U.S. Army Chief of Staff, argued for a landing in France in the fall of 1942.²⁴ The British refused. They had already been forced to evacuate at Dunkirk and had no wish to retreat again. Although Moscow was screaming for a second front, it would be of little avail if it were thrown back into the sea.²⁵ They wanted an invasion of North Africa instead. It would not only be easier, but it would also allow the green American troops to gain experience and ensure the safety of Egypt and the Suez Canal. Operation *Torch* was approved.²⁶

Lieutenant General Dwight Eisenhower was chosen to command the operation, largely because American troops would supply the bulk of the invasion force. He advocated landings at Casablanca and Oran. The British disagreed with this limited vision, maintaining that once the Nazis saw the invasion, they would rush troops into Tunisia and block the Allies from moving east and linking up with the British Eighth Army in Libya. Instead, the

British wanted additional landings at Algiers, Bone, and Philippeville in Algeria. This would put Allied troops close to Tunisia, allowing them to move in quickly and forestall a Nazi advance. A compromise was reached: besides Casablanca and Oran, the Allies would land at Algiers—500 miles from Tunis.²⁷

North Africa was under the control of Vichy France and heavily defended.²⁸ The French were distrustful of the British; they felt they had been left in the lurch during the battle for France, and the British attacks on their fleet at Mers-el-Kebir in July 1940 were deemed an outrage.²⁹ Eisenhower kept British troops out of the vanguard of the attacks lest they spur a spirited defense.

The invasion took place on November 8, 1942. French resistance was short-lived, and within 3 days Morocco and Algeria were subdued. Unfortunately, the decision to forego landings farther east proved problematic, as the British anticipated. While the Allies were securing their landing areas, German forces flooded into Tunisia. At the time of the Allied landings, there were 11,000 Axis troops in Tunisia; 6 weeks later there were over 47,000.³⁰ A bitter battle would be required to drive them back. Tunisia finally fell on May 13, 1943, and the campaign was over. The Allies suffered 75,000 casualties, but the Axis had over five times that number including 275,000 who became prisoners of war.³¹

The invasion of North Africa was one of the more successful examples of a second front operation. The goals of the Allies were fulfilled. *Torch* produced precisely the type of incremental successes such operations were designed to achieve.

Observations

The dominant reason for opening a second front is to avoid an enemy's strength. If the enemy elects to defend vigorously at the new venue, he must often disperse his forces. Gaining an economic advantage can also be a major motive, and this was a partial explanation for the Sicilian Expedition. Similarly, Britain saw Iberia as a major trade market after Napoleon shut down most of Europe to its merchant fleet. Sometimes, financial gain does indeed accompany such operations, but often they cost far more than they earn. Another motive for a second front is an attempt to split an alliance. This was one goal of the British and French at Gallipoli in 1915 when they hoped to force the Ottoman

Empire out of the war. Other operations, such as *Torch* in 1942, were a combination of several motives: driving Axis forces out of North Africa, securing the Mediterranean Sea and Suez Canal, and providing experience for American troops and commanders. These objectives were achieved, although the campaign to capture Tunisia was unnecessarily difficult and protracted.

Now we turn to some overall observations of the case studies described that will shed light on specific factors that helped lead to either success or failure in these flanking maneuvers.

Success versus Failure

Logical and Achievable Strategic Plan. The first and most important

determinant of a second front's success is the logic and achievability of its aim. In some cases, goals are well thought out—for instance, the decision to launch *Torch* in 1942 and the Peninsular Campaign during the Napoleonic wars.

Other goals make less sense. The Sicilian Expedition of 415 BCE is an example of poor strategic vision; it was not obvious how the invasion would impact the main enemy, Sparta. Syracuse, although friendly to Sparta, had never taken up arms against Athens. Sending an army to Sicily denuded Athens of an adequate defensive garrison, leaving it prey to Spartan attack—which indeed occurred. In short, given the risk involved, what was the expected payoff? Even if the invasion had been successful, it is not obvious



Corsair fires rockets toward enemy positions at Iwo Jima

U.S. Marine Corps

what gains would have accrued to Athens in its war with Sparta.

In some instances, the objectives sought appear worthwhile, but their achievability is questionable. The Gallipoli operation of 1915 looked reasonable at first glance, but it had glaring flaws. It is notoriously difficult for ships to compel the surrender of a defended fortress—much less an entire nation—but Royal Navy leaders pushed aside such details and launched the assault anyway. Reinforcing failure, the Allies upped the ante and committed several divisions of ground troops in a futile attempt to correct earlier misjudgments. The result was an even greater failure.

Accurate Net Assessment. A net assessment is the cost-benefit analysis done prior to a military operation that includes intelligence on the enemy's positions, strengths, supply lines, armament, and so forth, but also notes the strengths and weaknesses of one's own forces. It should contain a weighing of goals against expected costs.

The Athenian assessment was faulty. Not only did Athens not encounter a friendly population, but the horses, troops, and money promised by the Egestaeans were never forthcoming. The Athenians were duped.³² They also overestimated the willingness of Sicilian city-states to support an attack on Syracuse.

Napoleon overestimated Spain's value, believing it to be fabulously wealthy. In truth, Madrid was nearly bankrupt. Moreover, establishing Joseph on the throne was a huge error.

The Spanish king may have been an imbecile, but he was Spanish. Napoleon could install a Frenchman on the throne, "but he could not give him popular support."³³ In addition, Spain was incapable of supporting a large army; it was an old adage that "large armies starve in Spain and small ones are defeated." Supplying a French army over the Pyrenees proved to be a monumental problem.³⁴

The net assessment conducted by the British at the Dardanelles in 1915 was poor. They underestimated the strength of the Turkish forts, the difficulty of knocking out coastal fortifications with naval guns, the impossibility of using trawlers (manned by civilians no less) to sweep mines in the narrow waters with hundreds of enemy guns on both coasts, the horrendous terrain waiting on Gallipoli, and the determination of the Turkish defenders.³⁵

The Allies' assessment was unusually accurate for *Torch*, helped much by the breaking of German top-secret codes—"Ultra" intelligence transmitted on Enigma machines. The Allies knew where Axis troops were located and how they were equipped. More importantly, they possessed insight into Vichy French forces and leaders in Northwest Africa, which was crucial for the landings' success.³⁶

Leadership. Leadership at all levels was crucial in determining success or failure. In Sicily, once Alcibiades fled and Lamachus was killed, Nicias was too hesitant and pessimistic. He had not supported the expedition in the

first place, and his penchant for delay meant that his forces were ever on the defensive.

French generals in the Peninsular Campaign had never encountered such austere conditions or endured such relentless guerrilla warfare. Most could not adapt.³⁷ On the other hand, Wellington was an excellent general, although it must be noted that in the Peninsular Campaign he never had to face the best French commander—Napoleon himself. On one occasion, Wellington commented after a hard-fought victory that "If Boney had been there we should have been defeated."³⁸

Allied leadership at Gallipoli was mediocre and slow to react. In February 1915, there were only two Turkish divisions deployed along the strait; that number doubled by the time the naval assault began, but there were still only six divisions at the time of the major landings. Unfortunately, the Allies were equally dilatory. B.H. Liddell Hart railed against the piecemeal application of force: "If the British had used at the outset even a fair proportion of the forces they ultimately expended in dribbles, it is clear from Turkish accounts that victory would have crowned the undertaking."³⁹ In addition, the Admiralty staff in London did not offer realistic plans for how to reduce the forts or overcome the more than 400 underwater mines within the strait.

Victory was not inevitable in North Africa. American commanders were either untested or prone to mistakes. Eisenhower, who had no combat experience, was a consummate planner, but even there he showed a lack



Operation *Torch* Allies storm beaches near Algiers on November 8, 1942

NARA

of vision and a tendency to conservatism. His original intent of landing only at Oran and Casablanca was insufficient. After the success of the landings at Algiers he procrastinated in his move toward Tunis, and the delay prolonged the campaign and cost thousands of casualties.⁴⁰

Intelligence. The Athenians were bereft of suitable intelligence on landing in Sicily. The populace saw them as invaders and instead channeled information to Syracuse. Similarly, the French in the Peninsular Campaign were denied information on the dispositions and intentions of the British, Spanish, and Portuguese. The enemy populations hated the French and served not only as guerrillas to harry supply lines, but were also ruthless in tracking down and killing French spies and couriers.⁴¹

In World War II, the Allies broke the top-secret German codes early in the conflict. This ultra-secret intelligence was fundamental in staying ahead of the Germans. At Alamein, for example, Bernard Montgomery was provided with detailed information on the status and dispositions of the entire German and Italian defensive positions as well as, most importantly, their fuel situation.⁴²

Good military commanders appreciate the importance of intelligence to the success of their operations. Great military commanders work to ensure they actually *have* timely and accurate intelligence. Intelligence is always a key to victory, and the commander's attitude and personal involvement in the intelligence process are crucial.

Friendly Population. It is difficult for any invader to launch an amphibious operation against a defended shore. Largely because of that the North African invasion was a gamble. Allied leaders predicted barely a 50 percent chance of success. Once ashore, the invader must move quickly to ensure the enemy is unable to concentrate his forces and drive him back into the sea.

Even if the landings are unopposed, an attacker is still not free of care. He must establish a firm base that will permit resupply. Wellington enjoyed such a base in Portugal, which allowed him to operate at some depth into Spain and eventually in France itself. The opposite was the case for France. The French could not ignore the Spanish army that constantly appeared in their rear and along their lines of supply, making it impossible to marshal their full strength against Wellington.⁴³

It was not necessary to win over the population and make them allies, although as noted this occurred in Iberia and was a major factor in British success. The Arab populace in North Africa was indifferent to who occupied the country in 1942, and the Vichy French were easily won over, thus making Allied operations significantly easier.

Force Size. It is an aphorism that attacking an enemy in a defended position requires a three-to-one superiority. Surprisingly, that superiority has not always been present. At Gallipoli, the Allies fed in divisions in a piecemeal fashion. This slow buildup allowed the Turks to simultaneously increase their own defensive forces, with the result that the Allies were never able to establish superiority over

Peloponnesian War, yet that advantage did not provide victory in Sicily because Athens was unable to exploit it.⁴⁵ The fleet could not effectively blockade Syracuse itself and thus did not prevent its resupply and reinforcement from Sparta and Corinth.⁴⁶

Similarly, command of the sea was seemingly assured at Gallipoli, but that was not really the case. There are two aspects to sea control. First, the enemy is prevented from using the sea either to resupply himself or to attack the commerce or warships of the stronger power. The Royal Navy fulfilled that requirement. The second aspect is often overlooked: the enemy is unable to halt the offensive actions of the attacker. Defeating the enemy's fleet is not an end in itself; control

in all of the second front examples noted, command of the sea was a significant factor in success

the enemy defenders—the Turks eventually had 15 divisions in defense to the 12 divisions of the Allies.

During the Allied invasion of North Africa, there was some concern over the resistance that would be offered by the Vichy French defenders, but Allied intelligence, which proved accurate, placed such resistance at an acceptable level. Moreover, the 200,000 American and British troops hitting the beaches in Morocco and Algeria were sufficient to overawe the French defenders into but a token fight. The argument over the venue for the second front—France versus North Africa—was an important one for this very reason. The French coast would be defended by first-rate German troops, and that presented an entirely different level of risk.

Command of the Sea. In all of the second front examples noted, command of the sea was a significant factor in success. Sea control was crucial to Wellington because most Spanish roads were appalling. The fleet allowed the British to be supplied with food, ammunition, and reinforcements constantly. The Royal Navy did more, providing fire support to army units operating close to shore, resupplying allied coastal fortresses under siege while blockading those held by the French, and serving as a rapid and efficient transportation service for Wellington's troops.⁴⁴ But sea supremacy was not enough to guarantee victory. The Athenians had the greatest fleet in Greece during the

of the sea must then be exploited. That was impossible at Gallipoli because Turkish land-based defenses and mines prevented the Royal Navy from forcing the straits and achieving victory.

In sum, naval superiority was an essential but insufficient factor in the success of these operations.

Command of the Air. World War II demonstrated from its outset that control of the sea was difficult to maintain if the air above the sea was not controlled. During the 1940 Norwegian campaign, the Royal Navy realized on the first day that its ships were extremely vulnerable to the Luftwaffe. Royal Air Force aircraft based in Britain did not have the range to extend an air control bubble over the landing areas. The aircraft of the Fleet Air Arm had reasonable range, given that the Royal Navy's carriers were in Norwegian waters; however, they were obsolescent compared to Luftwaffe aircraft.⁴⁷

Operation *Torch* similarly illustrated the importance of control of the air. It was not coincidental that a key objective at all landing sites on November 8 was to secure airfields for Allied use.⁴⁸ For the rest of the war, commanders realized that amphibious operations could not succeed if the enemy controlled the air regardless of the size of the flotilla supporting the landings. American amphibious assaults in the Pacific were dependent on air superiority; it was by design that General Douglas MacArthur's

“island-hopping” campaign consisted of 300-mile hops; that was the radius of U.S. fighter aircraft at the time. Air superiority was no less crucial in Europe. Eisenhower considered it a prerequisite and would later testify before Congress regarding the importance of air superiority for the Normandy invasion, stating it was the “deep-seated faith in the power of the air forces, in overwhelming numbers, to intervene in the land battle” that made the landings successful.⁴⁹

Implications

The decision to open a second front against a powerful enemy is a time-tested strategy used for millennia. It provides a less risky option when fighting a powerful opponent while at the same time offering a chance for surprise and initiative. Some of these operations have been successful throughout history while others have not. The above examples offer reasons for success or failure.

Since World War II, the United States has fought wars of choice, not necessity. Korea, Vietnam, Iraq, and several lesser operations were entered as responses to aggression against allies or strategically situated nations/populations we chose to protect. These actions were similar to second front operations based on the motives and constraints involved—a deliberate decision to either limit American commitment or avoid initiating a major war.

The terrorist attacks of September 2001 necessitated a strong response. Even so, it was disastrously faulty intelligence that pushed the

United States into an invasion of Iraq. That war, plus Afghanistan peacekeeping operations, employed substantial resources in troops and material, but any results gained were dearly bought over an unusually long time.

Our melancholy experience in the Middle East over the past decade stands in contrast to the wisdom and economy of second front operations that were characterized by restraint. Such caution is increasingly necessary. The American use of force is now characterized by limited liability and a deliberate effort to avoid casualties. The latter, significantly, applies not just to our own forces, but those of the enemy as well. Because the United States is attempting to shape events in foreign countries, it is imperative that it not employ or provoke so much force that the populace is turned against us.

These unusual objectives and limitations push us toward military responses similar to those that dictated second front operations of the past. We wish to avoid taking on an enemy too directly—continued presence should be avoided; risk must be minimized; casualties, especially to the civilian populace, must be severely limited.

As in second front operations, the keys to success are similar and seemingly timeless: the necessity of a clear and achievable strategic goal, the completion of a sound net assessment, accurate and detailed intelligence both before and during the operation, capable if not exceptional leadership at all levels, a sound base and friendly populace, and both sea and air control.

Because American interventions are now almost exclusively expeditionary, the United States must have a robust capability to project power worldwide quickly and sustainably. Sea- and airpower control are essential to protecting those long lines of communication. So too, sea-, air-, and space-based intelligence and communications assets are imperative. In addition, the unique flexibility of airpower, whether land- or sea-based, allows extremely rapid and long-range employment combined with highly accurate and tunable force application. The action in Libya was intended to remove a brutish dictator and give the populace a chance for democracy, but like Kosovo in 1999, it did not involve the use of ground troops in combat.

As the last of our ground forces prepare to leave Afghanistan, it seems increasingly unlikely that America will consider injecting such conventional troops back into a hot area—the costs and risk are simply too high. Instead, we should take a page from the successful second front operations of the past. We should maximize the attributes of our sea and air forces, which can project enormous but discrete power over great distances at relatively low cost and considerably less risk. **JFQ**

NOTES

¹ Thucydides, *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, ed. Robert B. Strassler (New York: Free Press, 1996), remains the best contemporary source for the war.



Soldiers from 7th Infantry in Morocco during campaign in Northern Africa

U.S. Navy

² One of Alcibiades's biographers describes him as "Vicious, insolent, adorable, detestable, brilliant and fickle; with the face and body of a god and the wit of Aristophanes, he was the very incarnation of the spirit of Athens." See E.F. Benson, *The Life of Alcibiades: The Idol of Athens* (New York: D. Appleton, 1929), 47.

³ Thucydides, 367–368.

⁴ *Ibid.*, 375.

⁵ P.J. Rhodes, *Alcibiades* (London: Pen & Sword, 2011), 46.

⁶ It has never been determined whether the charges had validity. Alcibiades was infamous for his lavish and decadent lifestyle, but he was not a fool, and the crimes he was charged with were punishable by death.

⁷ John R. Hale, *Lords of the Sea: The Epic Story of the Athenian Navy and the Birth of Democracy* (New York: Viking, 2009), 194.

⁸ Donald Kagan, *The Fall of the Athenian Empire* (Ithaca, NY: Cornell University Press, 1987), 2–3.

⁹ For a good though dated account, see Eli F. Heckscher, *The Continental System: An Economic Interpretation* (Oxford: Clarendon, 1922). For a recent update, see Lance E. Davis and Stanley L. Engerman, *Naval Blockades in Peace and War: An Economic History Since 1750* (Cambridge: Cambridge University Press, 2006), chapter 2.

¹⁰ Actually, Sweden also frequently violated the Continental System, as did Russia in 1810, although the latter did so largely as a result of Napoleon's troubles in Spain.

¹¹ For the background, see David Gates, *The Spanish Ulcer: A History of the Peninsular War* (New York: Norton, 1986), chapter 1.

¹² David Chandler, *The Campaigns of Napoleon* (New York: Macmillan, 1966), 620.

¹³ Christopher D. Hull, *Wellington's Navy: Sea Power and the Peninsular War, 1807–1814* (London: Chatham, 2004), 70–74.

¹⁴ Joshua Moon, *Wellington's Two-Front War: The Peninsular Campaigns, at Home and Abroad, 1808–1814* (Norman: University of Oklahoma Press, 2011), 54–55, 221.

¹⁵ Stalemate was caused by the immense increase in deadly firepower brought about by rapid-fire artillery and the machinegun. The standard method of achieving mobility, cavalry, had no chance in the face of such firepower. In addition, the introduction of the airplane for reconnaissance meant that tactical surprise became increasingly difficult to achieve for either side. Finally, the growth of huge armies ensured an endless supply of troops to fill gaps and feed the meat grinder. The result was trench warfare and stalemate.

¹⁶ In U.S. parlance, the First Lord was the Secretary of the Navy, and the First Sea Lord was the Chief of Naval Operations.

¹⁷ Admiral Fisher had directed a study a decade prior that argued a navy-only operation to open the strait was impossible: troops were essen-

tial. Obviously, Fisher changed his mind due to Churchill's arguments. See Dan van der Vat, *The Dardanelles Disaster: Winston Churchill's Greatest Failure* (London: Duckworth Overlook, 2009), 20.

¹⁸ Bulgaria had attempted to capture the Dardanelles in 1913. This experience caused the Turks to beef up their defenses significantly, much to the Allies' detriment in 1915. See Edward J. Erickson, *Gallipoli: The Ottoman Campaign* (Barnsley, UK: Pen & Sword, 2010), 5–9.

¹⁹ Van der Vat, 99.

²⁰ Robin Prior, *Gallipoli: The End of the Myth* (New Haven: Yale University Press, 2009), 45.

²¹ The trawlers were fishing boats crewed by civilians and commandeered by the Admiralty for this task; regular minesweepers were thought better used in the North Sea and English Channel.

²² Van der Vat, 85.

²³ The troops sent to Gallipoli included French, British, and British Commonwealth forces, notably the ANZAC Corps that was comprised of Australian and New Zealand divisions. Prior, 93, gives a breakdown.

²⁴ Maurice Matloff and Edwin Snell, *United States Army in World War II: Strategic Planning for Coalition Warfare, 1941–1942* (Washington, DC: Office of the Chief of Military History, 1956), 185.

²⁵ *Ibid.*, 233. The British and Americans could argue they were already fighting on multiple fronts: in the Pacific, Burma, North Africa, and of course in a naval war in the Atlantic and the strategic bombing campaign being conducted by the Royal Air Force and soon to be complemented by U.S. Army Air Forces.

²⁶ Michael Howard, *History of the Second World War, Grand Strategy: Vol. IV: August 1942–September 1943* (London: HMSO, 1970), xxi–xxii; Matloff and Snell, 221, 283.

²⁷ Howard, 119; Matloff and Snell, 287–293.

²⁸ Howard, 118. After conquering France, Adolf Hitler permitted the southern part of the country to maintain a degree of autonomy. This government was located at Vichy and led by Marshal Henri Petain, a hero of World War I.

²⁹ The commander of the French fleet, Admiral Jean Francois Darlan, solemnly promised the British he would not allow the French fleet to fall into Nazi hands. Churchill elected to take no chances and ordered an air attack on the fleet to guarantee that it could not be used by the enemy. Over 1,200 French sailors were killed. The British had also attacked French positions in Madagascar and Dakar, further irritating their former ally.

³⁰ Howard, 118; Douglas Porch, *The Path to Victory: The Mediterranean Theater in World War II* (New York: Farrar, Straus and Giroux, 2004), 353.

³¹ George F. Howe, *US Army in World War II: Northwest Africa: Seizing the Initiative in the West* (Washington, DC: Center of Military History, 1957), 666, 676. For a good overview of the Tunisia campaign, see David Rolf, *The Bloody Road to Tunis* (Harrisburg, PA: Stackpole, 2001).

³² Thucydides, 387.

³³ Gates, 9–10.

³⁴ *Ibid.*, 33.

³⁵ The Ottoman Empire was neutral at the start of the war, but one event had enormous consequences and drove it closer to Germany. Constantinople had ordered two battleships to be built by Britain. In August 1914, however, Churchill reneged on the contract, arguing that the ships were needed for the Royal Navy. The Turks were outraged. See Peter Hart, *Gallipoli* (New York: Oxford University Press, 2011), 8.

³⁶ F.H. Hinsley et al., eds., *British Intelligence in the Second World War: Its Influence on Strategy and Operations*, 5 vols. (London: HMSO, 1979–1990), II, chapter 24.

³⁷ For a good evaluation of the various French commanders, see Richard Humble, *Napoleon's Peninsular Marshals* (New York: Taplinger, 1973), passim.

³⁸ Moon, 95.

³⁹ B.H. Liddell Hart, *A History of the World War* (Boston: Little, Brown, 1935), 183. Prior argues, however, that the Gallipoli operation was never close to success, 249.

⁴⁰ Porch, 341–343; Rolf, 44–45.

⁴¹ Gates, 35.

⁴² Hinsley et al., 425–435.

⁴³ Gates, 34.

⁴⁴ *Ibid.*, 1–2.

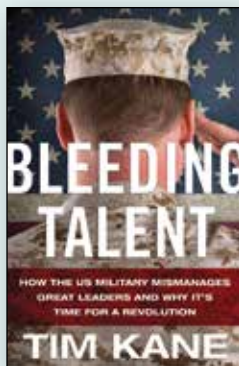
⁴⁵ Hale, 189.

⁴⁶ Thucydides, 434.

⁴⁷ For good accounts, see Adam A. Claassen, *Hitler's Northern War: The Luftwaffe's Ill-Fated Campaign, 1940–1945* (Lawrence: University Press of Kansas, 2001); Henrik O. Lunde, *Hitler's Pre-Emptive War: The Battle for Norway, 1940* (Philadelphia: Casemate, 2009).

⁴⁸ Wesley Frank Craven and James L. Cate, *The Army Air Forces in World War II*, 7 vols. (Chicago: University of Chicago Press, 1948–1958), II, 55–58.

⁴⁹ Testimony of General Dwight D. Eisenhower to Senate, *Department of Armed Forces, Department of Military Security: Hearings before the Committee on Military Affairs on S. 84 and S. 1482*, 79th Cong., 1st sess., 1945, 360.



Bleeding Talent: How the U.S. Military Mismanages Great Leaders and Why It's Time for a Revolution

By Tim Kane

Palgrave Macmillan, 2012

288 pp. \$30

ISBN: 978-0-230-39127-7

Reviewed by

LINDSAY L. RODMAN

Tim Kane's January 2011 article entitled "Why Our Best Officers are Leaving," published in *The Atlantic*, gave the world a preview of his new book and was the focal point of conversation across the officer ranks of the U.S. military. In early 2011, American military officers were nodding in agreement with the results of Kane's study regarding Army officers' decisions to stay in or leave the military. His article and book focus specifically on a sample of West Point graduates and their experience, but the outcomes and conclusions of his survey resonated across the Services.

The highlights of Kane's study are summed up in the answers to three questions:

- The most common answer to why officers left the military was frustration with the military bureaucracy (82 percent of respondents with 50 percent strongly agreeing).

- Ninety-three percent of respondents believed that most of the best officers leave the military early rather than serving a full career.

- Many of the best officers who leave the Service would stay if the military were more fully a meritocracy (90 percent).

Bleeding Talent makes a case based on this study, external data from the private

sector, and anecdotes that the military is a major source of great leaders and vital entrepreneurial thought. Veterans are disproportionately represented at the highest levels of American business. Yet the military has historically had trouble retaining that talent and applying it internally to spur entrepreneurialism within the military.

Aside from the survey itself, it is through anecdotes that Kane's depiction of mismanagement of high-performing field-grade officers will have real staying power with the reader. The most famous of these is the case of John Nagl—a prominent counterinsurgency specialist with substantial intellectual heft and educational pedigree—who left the Army as a lieutenant colonel after 18 years of service, just 2 years shy of a military pension and obvious qualification for promotion to colonel. Put simply, Nagl saw better opportunity on the outside for career advancement and to capitalize on his talents. A less-known and perhaps more telling anecdote is the story of Major Dick Hewitt, an Army officer who was hand selected for a prime command position in Korea that would have torn his family apart. Rather than sacrifice family for career, he left the Service in favor of eventual success as an entrepreneur in finance in central California. The ironic coda to this story is that Hewitt later met another of the command-selected officers who chose to stay in the Army despite being assigned to another duty station that did not work well for his family. After comparing circumstances, Hewitt discovered that the other officer had been assigned to a duty station that would have worked well for Hewitt's family; the other officer's wife was Korean, and she would have enjoyed being stationed in Korea. Had the manpower system allowed or enabled that conversation to happen earlier, both outstanding officers would have remained in the Service.

Kane uses this analysis to argue on behalf of a free market system that he calls the Total Volunteer Force (TVF) that would overhaul and revolutionize the military manpower system. He argues that a more flexible TVF would enable officers to move in and out of the military, and among billet assignments within the military, using human resource managers who are able to match talent, preference, and needs of the Service better than the military's current system of pairing virtually any free qualified mover with any free billet.

Kane himself acknowledges what a long shot his proposal is. However, even if the reader is unwilling to go as far as the author in terms of the solution, Kane presents a real and serious problem and makes a convincing case that the Defense Officer Personnel Management Act needs reform. His appendix is perhaps the most useful part of the book. There, Kane provides detailed results of his survey, complete with useful analysis and guidance in its interpretation. For those officers with whom Kane's original article resonated, the appendix provides the opportunity to dig deeply into academic analysis of the problem.

The military is rampant with griping about manpower assignments, distribution of special programs and incentives, and the general lack of meritocracy. While such complaints are bound to exist in any organization as a part of general human nature, this study starts to define a real problem and begins the process of forming potential solution sets. By surveying a broad range of West Point graduates and framing their responses in a thoughtful and accessible format, *Bleeding Talent* provides a voice for those officers within the system who are clamoring to be heard.

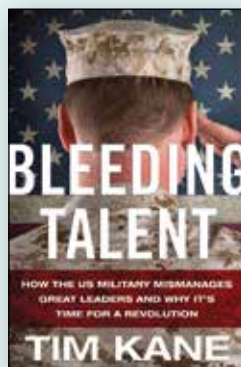
The concern among officers about the manpower system is more pronounced because of current and pending fiscal austerity measures and therefore merits attention and consideration at the highest levels of Pentagon leadership. Commentators across the defense world have produced numerous articles in the past few months about how to cut costs and downsize without significantly degrading our national security capability. The easiest way to cut, however, and the approach taken thus far, has been across-the-board reductions. In manpower terms, this translates into encouraging attrition, regardless of who is leaving, in order to draw down as quickly as possible.

Kane's book should be a cautionary tale. For each anecdote involving a successful, promising, entrepreneurial, and charismatic officer leaving the Service because it was unable to capitalize on his talent (unfortunately, there are no anecdotes about women), our leaders and policymakers should be considering manpower reform that would entice them to stay. We will face problems in the future that our leaders will have to solve with fewer resources and less manpower. We need our top entrepreneurs, most creative thinkers, and most talented leaders to ensure

that we do not end up with a hollow force. Kane's book has provided a useful resource with important insights that should be at the forefront of our concerns as we continue to reshape our force structure into the future.

JFQ

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GREGORY E. SCHWAB

In the *Chairman's Strategic Direction to the Joint Force*, General Martin Dempsey states that "In the years to come, our Joint Force will face several challenging transitions. We will transition from war. . . . We will transition from abundant to constrained resources. And, many Service members—and their families—will transition into civilian life. Any one of these would be difficult. All three together will test our leadership at every level."

In the midst of this leadership test comes a book with the intriguing title *Bleeding Talent: How the U.S. Military Mismanages Great Leaders and Why It's Time for a Revolution*. In it, author Tim Kane claims that now is the time for a change from the current rigid, coercive personnel system to a

more flexible, free market-based approach to ensure that we retain the very best military leaders.

Kane quickly establishes his credentials on this topic as a concerned veteran, entrepreneur, and economist. After leaving the Air Force, he reflected on his own experiences, on those of fellow veterans, and on a West Point speech in which then-Secretary of Defense Robert Gates stated that the greatest challenge facing the Army is its personnel bureaucracy. Kane laments that, in his view, "all branches of the military operate more like a government bureaucracy with a unionized workforce than a cutting-edge meritocracy" (p. 10).

To quantify these assertions, the author surveyed networks of 1989–2004 West Point graduates to understand the issue in greater detail. As an example of survey results, only 6 percent believed that the personnel system "does a good job retaining the best leaders," and only 32 percent believed the system "does a good job of weeding out the weakest leaders" (p. 15).

As a result of the survey, Kane concludes that the Services' use of market-based forces in the all-volunteer force (AVF) policy is effective at attracting innovative leaders. However, those leaders are then immediately subjected to a centrally planned, coercive personnel system to retain and advance them. It is this centrally managed system that eventually drives out some of the best talent. His proposal is to extend AVF's market-based approach into a career-long personnel system that he calls the Total Volunteer Force.

It would be easy to discount the notion of a market-based personnel system until we consider the dynamic that the current cadre of officers is now steeped in. The book quotes Army War College Professor Lenny Wong: "In today's Army, many junior officers . . . confronted with complexity, unpredictability, and ambiguity in a combat environment . . . learn . . . to adapt, to innovate, and to operate with minimal guidance" (pp. 54–55). This operational environment is diametrically opposed to the current personnel environment. The fear is that the best leaders will leave rather than be subjected to the current system.

Kane interestingly points out that today's system would not support a Robert E. Lee (an engineer) to lead an Army or a Joshua Chamberlain (a college professor) to lead a regiment (pp. 66–67). He also provides the reader a list of names of entrepreneurial leaders (characterized by innovation, open-

ness to opportunity, and decisiveness in uncertainty) who he believes would not survive in the current personnel system: Chester Nimitz, Alfred Thayer Mahan, Billy Mitchell, and John Boyd, to name a few.

The author effectively uses a chronology of the 20th century to lead the reader to an understanding of how this system has become so centralized and rigid. He begins by showing how Secretary of War Elihu Root employed the unskilled industrial labor methods of his time to form a professional army. He follows by describing how Secretary of Defense Robert McNamara centralized authorities in the 1960s. Kane culminates with an example of how today's computerized personnel system "optimally designates 15,000 officers [to careers fields] . . . in less than 10 seconds" (p. 120).

Kane's alternative model deserves a much more extensive reading, but here briefly is his foundation: give commanders conditional hiring authority; end the use of seniority (known as year groups) as the sole basis for job selection and promotion, but instead broaden the scope to always find the best candidates regardless of year group; and, ultimately, give commanders greater authority in determining compensation, deployments, promotions, and evaluations (pp. 136–141). The author ends his discussion by advocating 360-degree feedback as an essential element (an antidote to toxic leaders) to ensure that the best and brightest rise to the top.

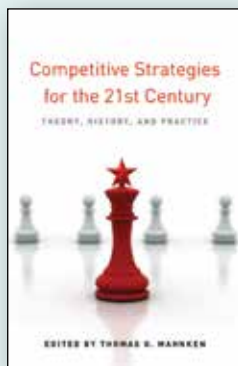
I agree with the notion that those who have served in the military would embrace a much more adaptive personnel system. Change would require real leadership to assess, adapt, and overcome the institutional inertia of a system with a century's worth of investment. Unfortunately, time is not on our side. The rapid constraining of defense resources and the quickly changing international defense environment require that we adapt now to ensure that we retain the best leaders and not simply retain officers by the seniority-based methods of the past. If we do proceed down this path, change would also require great care. For example, cultivating a small cadre of disruptive innovators is essential in any thriving organization but having too many can have tragic effects.

I also agree with Kane's notion of supporting talented leaders who find themselves outside of accepted career tracks. They fall into two groups. To cultivate talented leaders who remain on Active duty, we need

a program that would identify and shepherd them in a new separate career field-like environment. To cultivate those who traditionally leave Active duty, we need a program to allow a few to freely flow among various established career paths, academia, and even industry (modeled on the Individual Mobilization Augmentee program). The target of both is to capture unique talent when it is in the best interest of the Service without sidelining them from progression.

Ensuring that the joint force retains and promotes the best leaders to meet the challenges facing us will test leadership. Kane provides one possible pathway to get us there by unleashing market-based forces. *Bleeding Talent* is a thought-provoking call to arms. This book and its bibliography should be required reading for anyone attempting to assess and implement change with the goal of establishing a truly adaptive personnel system conducive to these challenging times. **JFQ**

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Competitive Strategies for the 21st Century: Theory, History and Practice

Edited by Thomas G. Mahnken

Stanford University Press, 2012

344 pp. \$29.95

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Reviewed by
F.G. HOFFMAN

Strategy has always been a difficult art, and the challenges that modern strategists now face make practicing that art even more daunting. Some argue that American strategic thinking is deficient, or that there is a black hole where U.S. strategy should exist. If true, that does not bode well. As the United States comes out of protracted conflicts in Iraq and Afghanistan, facing an age with myriad threats but fewer resources, the American strategy community must reinvigorate its intellectual tools if the Nation is to sustain its position and underwrite international order.

This requirement makes *Competitive Strategies for the 21st Century* a timely and relevant exploration of an intellectual concept known as competitive strategies. It is also a serious examination of the possible contours of Sino-American strategic interaction. In this volume, editor Thomas Mahnken of the U.S. Naval War College observes that “U.S. leaders need to develop a well-thought out strategy for competing over the long term, which mandates an enhanced ability to clarify and prioritize its goals, conduct a net assessment of enduring U.S. strengths and weaknesses, and formulate and implement a strategy that leverages our existing or attainable competitive advantages against a range of competitors.”

The concept of competitive strategies, originally developed by business strategists including Michael Porter of the Harvard Business School, offers a viable approach for defining and exploiting such a sustainable, competitive advantage. Purists will argue the adjective is unnecessary; strategies are supposed to be inherently competitive. But just as often, security communities fail to examine long-term trends in the operating environment and to identify the potential influence of investment in key technologies or geostrategically relevant capabilities that could reduce the potential for violence or establish the conditions for success should a contest of arms occur. While strategies should be competitive against designated adversaries, many are not.

There are numerous characteristics of competitive strategies, which focus on long-term interaction between defense establishments in peacetime, long before any conflict arises. The authors share an understanding of these fundamental characteristics: a long-term approach, a distinct opponent with a

defined set of strengths and weaknesses, and a concerted effort to align one's own strengths against enduring weaknesses of the adversary. The goal of a competitive strategy is to induce one's opponent to invest in the game we want to play, and channel his investments and attention into forms of competition that are the least threatening to us.

Like any anthology, several chapters stand out. The overall quality of these papers is high, and the volume includes detailed assessments on specific elements of Sino-American competition including missile developments, submarine warfare, and aviation capabilities. The strength of *Competitive Strategies* lies in the contributions of major strategists, including Steve Rosen of Harvard and Brad Lee of the U.S. Naval War College. The latter's chapter offers a number of strategic insights drawing upon both European and Chinese strategic thinking and influences. His presentation of particular strategies (cost imposing, denial, attacking the enemy's strategy, and attacking the enemy's political system) offers a foundation for any student of strategy, and should be tied to the remaining authors' more specific assessments.

Barry Watts, a former senior Pentagon official and retired Air Force officer, identifies a number of barriers to thinking strategically. His chapter merits a close reading and incorporation into the curricula of both civilian and professional military educational programs that delve deeply into strategy. Watts brilliantly captures the complexities of strategies as mere heuristics, and probes why our capacity to predict their effectiveness is limited and how our own rationality is fouled by human biases. He exploits the work of Richard Rumelt, author of *Good Strategy/Bad Strategy*, whose list of “strategy sins” correlates too highly with U.S. national security products. Anyone truly interested in understanding what makes strategy difficult should examine this chapter closely.

Another invaluable contribution comes from Jackie Newmyer Deal, president of the Long Range Strategy Group, a Washington-based consultancy. Deal has long been a student of authoritarian regimes and their decisionmaking. She notes that Chinese history and strategic culture suggest that the People's Republic will seek to mask the players, processes, and outcomes of decisions. Manipulating information and

perceptions is a theme consistently present in ancient Chinese strategy texts and modern publications. Her chapter also underscores the complexity of divining competitive approaches against opaque adversaries, a warning that we should not assume away.

The current competition between the People's Liberation Army and American military power has been played out near Taiwan. This competition includes extensive investments in antiaccess capabilities to thwart U.S. power projection forces and acquiring significant numbers of advanced antiship cruise missiles, ballistic missiles, and targeting capabilities that could reach most of the Western Pacific. Dan Blumenthal captures the details of apparent Chinese strategy, concluding that "In sum, the balance of power between China's control capabilities in the first island chain and denial capabilities in the second island chain, and America's ability to project enough power into the Taiwan Strait to defeat China objectives, has shifted markedly, and in a manner that calls into question strategic stability." He goes on to predict that the character of competition in the South China Sea will be marked by China's coercive conventional strike and undersea capabilities in an "attempt to bully Southeast Asian states to accept its claims."

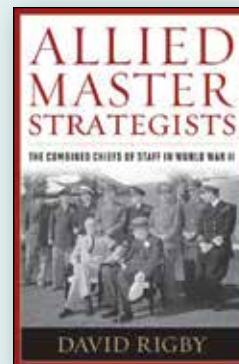
Augmenting Blumenthal's pessimistic conclusion, Michael Chase and Andrew Erickson of the U.S. Naval War College cover the marked growth in China's Second Artillery, noting that conventional missiles "have emerged as the centerpiece of China's ability to assert control over contested areas of its maritime periphery." They offer clear recommendations for American strategists: "Avoid playing into Beijing's hands by investing disproportionately in technologies that could leave it on the wrong end of an arms race that might prove too costly to continue to wage."

This volume frames competitive strategies in largely military terms. The exception is a superb chapter, the most multidimensional in orientation and content, by James Thomas and Evan Montgomery. While careful to note that conflict with China is not preordained, they argue for the need of American strategists to think competitively and lay out a comprehensive approach. The three core components of their proposed strategy include bolstering American military posture in the Western Pacific to preclude the possibility of successful sudden

Chinese strike operations, enhancing the technological capabilities and defensive capacity of friendly regional actors to ensure they are not intimidated by Chinese pressures, and exploiting internal crises within China as it comes to grips with its weak banking sector, rising ethnic unrest, demographic and environmental challenges, and so forth. The authors recommend against interfering with China's internal affairs, but counsel decisionmakers to prepare to exploit any opportunities that could arise.

Competitive Strategies is an invaluable historical assessment with clear prescriptive utility for modern application. It fills a hole in our grasp of strategy, especially for creating the elusive conditions by which one may attain the Nation's security interests well before forces are employed. If the art of generalship is all about creating the conditions for success on the field of battle by maneuver, then competitive strategies represent the highest form of art for strategists before the war even begins. Scholars and serious students of strategic studies should find its collective insights valuable. This volume is strongly recommended for senior military schools and any strategic studies program aspiring to ensure that its students are intricately familiar with the basics of competitive strategies and the Sino-American rivalry that could shape the 21st century. **JFQ**

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Allied Master Strategists: The Combined Chiefs of Staff in World War II

By David Rigby

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272 pp. \$29.95

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Reviewed by
FRANCIS P. SEMPA

In *The Grand Alliance*, the third volume of his history of World War II, Winston Churchill speculated that future historians would judge the establishment of the Combined Chiefs of Staff (CCS) in January 1942 as the most valuable and lasting result of the first wartime Anglo-American summit meeting in Washington, codenamed "Arcadia." The CCS met more than 200 times during the war, mostly in Washington but also at conferences in Casablanca, Quebec, Tehran, Cairo, Malta, and the Crimea. The CCS, wrote Churchill, "considered the whole conduct of the war," and submitted recommendations to British and American political leaders. Despite sharp conflicts of views and heated, frank arguments, "sincere loyalty to the common cause prevailed over national or personal interests." Churchill concluded that "[t]here never was a more serviceable war machinery established among allies."

Historian David Rigby in *Allied Master Strategists: The Combined Chiefs of Staff in World War II* describes the CCS as "the nerve center of the most highly integrated effort at coalition warfare in history" (p. 1). Headquartered in the Public Health Building near the War and Navy Department offices in Washington, DC, the CCS evolved into a huge wartime bureaucracy that oversaw Anglo-American planning, production, logistics, and grand strategy. Its importance



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*Offshore Control: A
Proposed Strategy for
an Unlikely Conflict*

By T.X. Hammes



This paper is the start of what the author hopes will be a deep, wide-ranging discussion of potential strategies for a conflict with China. While such a conflict is undesirable and highly unlikely, it is driving many of the Pentagon's investment decisions today. Under a proposed strategy of "Offshore Control," the United States would work with Asia-Pacific nations to interdict China's energy and raw material imports and industrial exports, while protecting our partners. This strategy would have several advantages: it would slow a crisis down, reducing escalatory pressure on decisionmakers; align U.S. strategic requirements with the resources available; take advantage of Pacific geography to provide strategic, operational, and tactical advantages for U.S. forces; provide a way for the conflict to end that is consistent with previous Communist Chinese behavior; and finally, provide for conflict resolution that does not require an unobtainable "decisive" victory.



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to the Allied war effort cannot be overestimated. As Rigby writes, "[N]ever before or since in history has one military staff been responsible for the planning and ongoing supervision of as many simultaneous, large-scale military operations" (p. 210).

Rigby begins his study with brief biographies of the CCS principals: for the British, General Sir Alan Brooke, Air Chief Marshal Sir Charles Portal, Admiral of the Fleet Sir Dudley Pound, Admiral of the Fleet Sir Arthur Cunningham, and Field Marshal Sir John Dill; for the Americans, General George Marshall, Lieutenant General Henry "Hap" Arnold, Admiral Ernest King, and Admiral William Leahy. Of these, Generals Brooke and Marshall exercised the most power and influence due to their dual roles as CCS members and principal military advisors to Churchill and Franklin D. Roosevelt, respectively. Field Marshal Dill played a key role as head of the British Joint Staff Mission in Washington where he established a strong relationship with General Marshall and earned the respect and trust of most of the other American military chiefs. Rigby is not alone in concluding that "without the Marshall-Dill friendship the Combined Chiefs of Staff system simply would not have worked" (p. 57).

The CCS mission was to organize and run a global war on every continent, on the high seas, and in the air to defeat the Axis powers. To perform that mission effectively, the CCS had to overcome many obstacles including the different strategic perspectives and cultures of each nation, interservice rivalry within each nation's armed forces and between the British and American militaries, clashing personalities and egos within the CCS and among theater and field commanders, competing demands for soldiers and material in the different theaters of war, and the peculiar political personalities of Churchill and Roosevelt.

Throughout the war, British and American members of the CCS clashed over strategic priorities and the most effective strategy to win the war. In the European theater early in the war, the British, with vivid memories of the slaughter in northern France and Flanders in World War I, favored a Mediterranean-centered strategy focused on North Africa, Sicily, and Italy in an effort to strike at the "soft underbelly" of the Axis, while the Americans throughout the war viewed northwest Europe as the Clausewitzian "center of gravity" of the European theater. In the Far East, Britain

focused its attention on Singapore, Hong Kong, and Burma/India, while the Americans sought the defeat of Japan primarily by striking across the Central Pacific with sea- and airpower. Gradually and inevitably, as the American material and manpower contribution to the war effort outpaced Britain's, U.S. strategic preferences guided Anglo-American policy.

Rigby notes that there was nothing comparable to the CCS on the Axis side. "In spite of the Tripartite Pact, Germany, Japan, and Italy repeatedly kept each other in the dark in regard to issues of vital strategic significance" (p. 97). This lack of coordination among the Axis powers put them at a significant disadvantage against the Anglo-American coalition and its efforts to coordinate plans and strategy with the Soviet Union.

Rigby faults American and British political leaders for not including Soviet representatives in the CCS. He admits that this was a complicated issue given the nature of the Soviet regime but believes that a diplomatic overture by the Western Allies should have been attempted and, if successful, would have proved advantageous to the war effort. This is too sanguine a view of Stalin's Soviet Union, which was nothing more than an ally of convenience during most of the war and a political adversary at the end. Indeed, one cannot help thinking that James Burnham of the Office of Strategic Services and General Muir S. Fairchild of the Joint Strategic Survey Committee were right in late 1943–early 1944 when they proposed ending all lend-lease shipments to the Soviets, who by then did not need them to defeat Adolf Hitler.

Historians can find fault with certain members of the CCS and some of its specific decisions, but in the end it proved its worth by winning the war. As Rigby shows in this interesting book, "It was the Combined Chiefs of Staff organization, not politicians, diplomats, or bureaucrats, that was the most important planning agency behind the military victories achieved by the Western Allies during the war" (p. 7). **JFQ**

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From National to Theater Developing Strategy

By DEREK S. REVERON and JAMES L. COOK

Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat.

—Sun Tzu

As a consequence of budget deficits and rebalancing the force, the Department of Defense (DOD) increasingly requires strategy to operate in a fiscally constrained environment. While resources are in decline, national security challenges persist as new ones emerge. Reflected in documents such as the National Security Strategy and National Military Strategy, the United States attempts to shape the international security environment by balancing threats in key regions of the world, assisting partners in combatting internal challenges, and supporting allies to solve their own security dilemmas. While security strategies are developed in Washington, combatant commands must translate national objectives into theater strategy to advance and defend U.S. interests.

With a strong notion that strategy should prevent “train wrecks,” or at least be prepared for train wrecks, Dan Dresdner argues that grand strategies:

matter most when actors are operating in uncharted waters. They can function as cognitive beacons, guiding countries to safety. During normal times, decisionmakers will extrapolate from current capabilities or past actions to predict the behavior of others. In novel times, however, grand strategies can signal to outsiders the future intentions of a country’s policymakers, reassuring or repulsing important audiences.¹

Hal Brands argues that strategy “should flow not from mere reactions to day-to-day events, but from a judgment of those enduring interests that transcend any single crisis.”²

Uncertainty associated with China’s rise, the Arab Awakening, and the persistence of transnational threats suggests strategy is essential to avoid going from crisis to crisis. In general, the United States attempts to diffuse situations before they become crises through a strategy of prevention and building partner capacity to control security challenges.³

Strategies are relatively easy to develop, but Carl von Clausewitz is instructive here: “Everything in strategy is very simple, but that does not mean that everything is very easy.”⁴ The challenge for the strategist is to coordinate the various levers of national power in a coherent or smart way. Former Secretary of State Hillary Clinton emphasized this idea: “We must use what has been called ‘smart power’: the full range of tools at our disposal—diplomatic, economic, military, political, legal, and cultural—picking the right tool, or combination of tools, for each situation.”⁵ Calls for smart power were a reaction to George W. Bush’s foreign policy, but more importantly underscores that power relations are differentiated. In the context of military power, unipolarity dominates thinking about the U.S. position in the world, but recent foreign policy frustration illustrates that power relations are stratified.⁶ At the military level, U.S. power is unparalleled and unprecedented. At the economic level, the United States is checked by other great economic powers such as Japan, the European Union, and the People’s Republic of China, and through institutions such as the World Trade Organization. At the informational level, the United States is but one of many state and nonstate actors that influence global events.

To be effective in a differentiated world, strategists must answer three basic questions. What do we wish to achieve or what are the desired *ends*? How do we get there or what are the *ways*? And what resources are available, or what *means* will be used? While the first question is largely the domain of civilian policymakers, military officers are expected to advise and ultimately implement strategy. As Chairman of the Joint Chiefs of Staff General Martin Dempsey noted, “Strategic coherence . . . does not just happen. Rather, it results from dialogue and debate.”⁷ With regular interactions with their counterparts throughout the world, combatant commanders are key national security actors in the strategy development process.

Defining Strategy

At a minimum, strategy should link ends, ways, and means. For DOD, *strategy* is “a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives.”⁸ Strategy also is about *how* leadership can use the *power* available to the state to exercise control over people, places, things, and events to achieve *objectives* in accordance with national interests and policies. In fact, Hal Brands describes *grand strategy* as a “discipline of trade-offs: it requires using the full extent of national power when essential matters are at stake, but it also involves conserving and protecting the sources of that power.”⁹

Henry Barnett visualized strategy as an *interaction* among key variables: the security environment, ends, ways, means, resource constraints, and risk.¹⁰ As represented in figure 1, strategy is shaped by the security environment, as it attempts to shape the security environment. Just as no plan remains intact after first contact with the enemy, no strategy can exist outside the real world. Allies, partners, and adversaries can affect successful strategy implementation by balking at U.S. demands (for example, Turkey

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refused to allow the United States to transit through its territory to invade Iraq in 2003), imposing caveats on forces in coalition operations (Germany's refusal to engage in certain types of combat operations in Afghanistan), and outright efforts to undermine U.S. objectives (China's support of authoritarian regimes that forestall democratic change).

At the same time the international security environment impacts strategy, so do resource constraints. As Colin Dueck argues, the American approach to strategy is flawed: "Sweeping and ambitious goals are announced, but then pursued by disproportionately limited means, thus creating an outright invitation to failure."¹¹ Since the 1990s, the limits (and frustration) with U.S. grand strategy tend to be explained by an expansive view of security challenges that includes subnational and transnational challenges. While burden-sharing through coalition operations is the norm, the United States increasingly identifies more challenges than it and its partners can manage. Given global defense cuts, the resource gap will be exacerbated unless balance is achieved among ends, ways, and means. Combatant commands are key in this process as they train and equip partners, sponsor regional exercises, and employ military forces.

To set priorities, the strategist can look to national interests as a starting point to determine ends because they help identify the reasons countries employ military forces. National interests can be universal and enduring, such as ensuring the security of the state and its people. Additionally, national interests

can be the product of national policymakers, such as advancing democratic institutions or protecting the environment. The attempt to distinguish intensity of national interests is important to set priorities. Hans Morgenthau differentiated between vital national interests and secondary interests, which are more difficult to define.¹² In a 2011 speech, President Barack Obama offered his priorities and intimated the conditions under which his administration might consider something vital: "I have made it clear that I will never hesitate to use our military swiftly, decisively and unilaterally when necessary to defend our people, our homeland, our allies, and our core interests."¹³ In the same address, President Obama clarified what he thought were secondary interests:

*There will be times . . . when our safety is not directly threatened, but our interests and values are. Sometimes the course of history poses challenges that threaten our common humanity and common security, responding to natural disasters, for example; or preventing genocide and keeping the peace; ensuring regional security; and maintaining the flow of commerce. In such cases we should not be afraid to act but the burden of action should not be America's alone. As we have in Libya, our task is instead to mobilize the international community for collective action.*¹⁴

Presidential policy is one source for discerning vital from secondary interests. Peter Liotta observed that national interests

should also answer a fundamental question: "What are we willing to die for?"¹⁵ That is, where is the United States willing to put Servicemembers' lives at risk? To this we add, "What are we willing to kill for?" and "What are we willing to pay for?" One relatively simple approach to this rather complex and somewhat ambiguous concept is to stratify national interests:

- Vital interests. What are we willing to die for (for example, invade Afghanistan with ground forces to destroy al Qaeda training camps)?
- Important interests. What are we willing to kill for (for example, participate in a North Atlantic Treaty Organization air campaign to prevent genocide in Libya)?
- Peripheral interests. What are we willing to fund (for example, train and equip African Union peacekeepers for Somalia)?

Given the U.S. ability to achieve air supremacy or launch standoff weapons, the Nation can kill with limited risk to its Airmen or Sailors, giving it a coercive advantage during diplomatic crises. In the 1990s, for example, missile attacks against Iraq and the air war for Kosovo exemplified that the United States was willing to kill to achieve objectives but not willing to die. In both cases, the United States deliberately withheld ground force options, which would have considerably raised the stakes. It seemed that airpower alone could achieve strategic interests.¹⁶ Advances in remotely piloted vehicles over the last decade have enhanced U.S. ability to conduct casualty-free warfare, as evidenced by regular drone strikes in Pakistan, Yemen, and Afghanistan.

In addition to using military force, the United States also pursues its national interests through friendly surrogates. In cases such, the Nation is willing to fund others to provide humanitarian assistance, conduct peacekeeping operations, and contribute to international military coalitions. The clearest example is through the Global Peacekeeping Operations Initiative, which was designed to train and equip foreign peacekeepers for global deployment.¹⁷ A program such as this initiative seeks to limit the impact of regional crises while providing the international community a ready pool of international peacekeepers. Along these lines, Washington was willing to fund African militaries to operate in Somalia, but it was not willing to deploy

Figure 1. The Shaping of Strategy



ground forces or establish a no-fly zone. This approach is likely to increase in an era of burden-sharing where “building partner capacity is an essential military mission and an important component of the U.S. Government’s approach to preventing and responding to crisis, conflict, and instability.”¹⁸

After ends are defined, policymakers and national security professionals develop the ways to achieve national interests. Ways can be thought of as concepts, which are end-to-end activities that define how elements, systems, organizations, and tactics combine to accomplish national objectives or tasks.¹⁹ By specifying ways or concepts, the military departments can then develop required capabilities and attempt to limit redundancies. For example, the military might identify global strike operations as a key concept or “way” the force will operate in the future (for example, in response to local access denial). That concept could be used to identify required capabilities, such as the ability to accurately deliver a strike anywhere in the world with 24-hour notice. The means to provide that capability could range from submarine-launched missiles to long-range bombers or even sabotage missions conducted by special operations forces, but the concept would provide the key guidance on what means the military would actually need.

As Presidents and their administrations evaluate ways to advance and defend national interests, criteria emerge suggesting conditions for military force employment. Not all crises around the world garner or warrant the commitment of U.S. forces. The public, according to the 2012 Chicago Council Survey, increasingly seeks to cut back on foreign expenditures and avoid military engagement whenever possible, yet 70 percent “support the use of U.S. troops to stop a government from committing genocide and favor their use in dealing with humanitarian crises.”²⁰ The military, however, favors a conservative approach to force employment, tracing its roots to the Vietnam experience and embodied in the Weinberger Doctrine.²¹

When evaluating ways, strategists should analyze suitability, acceptability, and feasibility? Most importantly, is the action suitable or likely to actually achieve the desired ends? Also, is it an acceptable choice given ethical, legal, political, and organizational constraints? At tactical levels, planners must ensure their ideas are feasible or can be carried out with the resources they

have been granted. Feasibility at the strategic level is more complicated, as strategists have the dual task of identifying resource gaps to guide future investments, while not relying on concepts whose resource demands will never plausibly be met. This is one reason the “Bartlett Model” of figure 1 shows never-ending iteration. As Colin Gray notes, strategy development is a dialogue.²²

If *ways* provide the framework or concepts identifying how elements of national power will be used to promote ends, *means* are the specific tools or capabilities available for carrying out those concepts. Raw resources such as money and people are not means until they are considered and prioritized within the context of strategy. Overall, the United States has a complex system for prioritizing and developing defense capabilities. Details change over time, but essentially DOD aims to identify gaps between capabilities needed to carry out desired strategies and those it actually possesses, prioritize those gaps given likely resource constraints, develop programs to create those capabilities, and work with Congress to fund the programs.²³

As the eventual consumers of DOD capabilities, combatant commands provide important support to concept and capability development. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 formalized this process to “utilize the significant experience and knowledge of [combatant commands] in the validation of critical capabilities and the development of future forces in U.S. defense planning.”²⁴ One of the ways combatant commanders accomplish this objective is by producing an Integrated Priority List (IPL) that sends a formal “demand signal” to the Pentagon by identifying capability gaps and providing the commander’s “highest priority requirements, prioritized across Service and functional lines. IPLs define shortfalls in key programs that may adversely affect the combatant commander’s mission.”²⁵ Additionally, combatant command representatives are invited to participate in Joint Requirements Oversight Council meetings, which are critical to determining and validating DOD capability requirements.²⁶ Although this goal is intuitive and rational, in practice, effective combatant command participation has proved challenging given competing perspectives and interests.

Overall strategic success is based on how well ends, ways, and means are balanced.

Julian Corbett observed that one has to constantly keep in view the politico-diplomatic position of the country (on which depends the effective action of the military instrument), and its commercial and financial position (by which the energy for working the military instrument is maintained).²⁷ In its simplest form, defense budgeting is a key variable that impacts strategy implementation. Former commander of U.S. Central Command General Anthony Zinni emphasized the importance of resources: “In my era, even if the [commanders in chief] produced good strategies at their level (and I believe we did), with good ends and reasonable ways to achieve them, we still had no idea whether or not the administration and the Congress would come through with the means.”²⁸ Although it is clearly not ideal, commanders are well advised to heed Corbett’s advice.

A strategy is not considered complete until a risk analysis is conducted to determine the ability of the organization to carry out the tasks and missions specified and implied by the strategy. Risk results from a mismatch among ends, ways, and means. In considering military strategy, DOD considers four dimensions of risk.²⁹ *Operational risk* is associated with the current force’s ability to execute the strategy within acceptable costs. *Future challenges risk* considers the military’s capacity to execute future missions against an array of prospective challengers. *Force management risks* consider recruiting, training, equipping, and retaining personnel. Finally, *institutional risks* focus on organizational efficiency, financial management, and technology development.³⁰ To identify and measure risk, DOD uses exercises, scenarios, and experimentation.³¹

As the preceding discussion suggests, strategy is developed in the context of the international security environment, and strategies must be reviewed as they encounter the real world. Reevaluation and interpreting surprise recalls Sun Tzu’s famous exaltation, “Know the enemy and know yourself; in a hundred battles you will never be in peril.”³² Ideally, perfect knowledge ensures success, but history is replete with evidence to the contrary. Because “[w]ar is . . . an act of force to compel our enemy to do our will,” the enemy has a vote, too.³³ War is characterized by fog and friction. Winston Churchill understood this: “The statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy

but the slave of unforeseeable and uncontrollable events.”³⁴ The preceding discussion applies to the development and evaluation of strategy in general, but national security professionals are primarily concerned with three specific levels of strategy: national or “grand” strategy, military strategy, and theater strategy.

Levels of Strategy

Grand strategy is the highest level of strategy and encompasses all elements of national power—diplomatic, informational, military, and economic.³⁵ While the country has always followed a grand strategy (for example, containment during the Cold War), Congress requires the President to publish a National Security Strategy. As required by the 1986 Goldwater-Nichols Act, the strategy describes:

*the worldwide interests, goals, and objectives . . . the foreign policy, worldwide commitments, and national defense capabilities of the United States necessary to deter aggression . . . the proposed short-term and long-term uses of the political, economic, military, and other elements of national power of the United States to protect or promote the interests . . . the adequacy of the capabilities of the United States to carry out the national security strategy.*³⁶

Since the statutory requirement, there have been 10 national security strategies released by U.S. Presidents (two from Ronald Reagan, two from George H.W. Bush, three from Bill Clinton, two from George W. Bush, and one from Barack Obama). While each President responded to particular security challenges during his tenure (that is, the ending of the Cold War for Presidents Reagan and Bush, and the rise of nationalist conflicts and global terrorism for Presidents Clinton and Bush), there have been continuous policies related to trade, America’s leadership in global affairs, and the promotion of international organizations to unify action. For example, Paul D. Miller argues that “contrary to widespread belief, the United States has been pursuing at least one pillar of an implicit grand strategy since the end of the Cold War: building the democratic peace.”³⁷ Other examples include the continuation of President Kennedy’s Cuba Policy, President Nixon’s China policy, President Clinton’s

trade policy, and President Bush’s counterterrorism policy.

Deriving strategic guidance from the country’s grand strategy, DOD has regularly produced a National Military Strategy (NMS) since the 1990s. In 2003, Congress required the Chairman of the Joint Chiefs of Staff to submit a biennial review of the national military strategy in even-numbered years. The NMS outlines the strategic direction for the Armed Forces (the military lever of national power), which should be consistent with the current National Security Strategy and contain the following elements:

*A description of the strategic environment and the opportunities and challenges that affect [U.S.] national interests . . . a description of the regional threats . . . a description of the international threats posed by terrorism, weapons of mass destruction, and asymmetric challenges . . . identification of national military objectives . . . identification of the strategy, underlying concepts, and component elements that contribute to the achievement of national military objectives . . . assessment of the capabilities and adequacy of forces . . . and assessments of the capabilities, adequacy, and interoperability of regional allies.*³⁸

Though there is no statutory requirement, the Secretary of Defense released a National Defense Strategy (NDS) in 2005, 2008, and 2012. Since the strategy is written (or at least directed and signed) by the civilian head of the military, the strategy should be read as directions to the uniformed military. Strategic documents are one form of civilian control through providing broad policy guidance to the military. The National Defense Strategy intends to provide a link between the National Security Strategy and the National Military Strategy. The 2012 NDS, for example, states that the ways the military element of national power will be used to support national strategy will be through 10 missions to include countering terrorism, deterring aggression, operating in cyberspace, and providing a stabilizing presence abroad.³⁹ With these assigned missions, combatant commanders develop theater strategies and request new or refined capabilities from the military Services to execute these missions.

The number of strategic documents in the United States can be overwhelming and are intended to work together to provide

“nested strategic direction” supporting the tasks, missions, and intent of the next higher strategy. One of the ways that is accomplished is through the Quadrennial Defense Review (QDR), which is a congressionally mandated activity that occurs every 4 years and requires the Secretary of Defense to conduct a review that includes a “comprehensive examination of the defense strategy, force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program and policies.”⁴⁰ The QDR sets a “long-term [20 years] course for DOD as it assesses the threats and challenges that the nation faces and re-balances DOD’s strategies, capabilities, and forces to address today’s conflicts and tomorrow’s threats.”⁴¹

With this “nesting of strategy” in mind and an understanding of how to develop strategy, the following focuses on how to develop theater strategy.

Theater Strategy

Using national strategy as a guide, combatant commands develop theater strategies that are “an overarching construct outlining a combatant commander’s vision for integrating and synchronizing military activities and operations with the other instruments of national power in order to achieve national strategic objectives.”⁴² Theater strategy is the bridge between national strategic guidance and joint operational planning as it guides the development of the Theater Campaign Plan (TCP). Theater strategy, and the TCP that operationalizes it, should offer an integrated approach to achieving security objectives: ongoing engagement, assistance, and presence activities should support contingency plans (for example, securing access to bases or improving ally capabilities), but more broadly, theater strategies should seek to make conflicts less likely by achieving U.S. ends through security cooperation and other tools of national power.⁴³

A major challenge in the development of theater strategy is the requirement to coordinate theater security cooperation activities with other U.S. Government activities. These activities can cover the entire spectrum of conflict—from peace operations to major combat operations—and often occur simultaneously, providing an additional level of complexity for the commander’s staff to consider during planning and execution of the theater strategy. Theater strategy must therefore be broad and flexible enough to

encompass a wide variety of political-military activities across a combatant command's area of responsibility at the same time.⁴⁴ It must also take into account other countries' activities. General Rick Hillier, former chief of the Canadian Defense Staff, remarked, "International cohesion is usually the first casualty of having tactics without a strategy to guide you."⁴⁵ Consequently, military diplomacy is essential for combatant commands to coordinate their activities with their partners and allies in a region to approach unity of effort.

Despite the complexity and criticality of theater strategy, there is relatively little doctrine or other guidance on developing it. Perhaps this is a contributing factor in Charles Bouchat's observation that "No two combatant commands follow the same process, format, or procedures for developing theater strategy. Each combatant command has adapted its method to the peculiarities of its region and the personalities of its commanders."⁴⁶ As part of this unifying effort, the Chairman of the Joint Chiefs of Staff has directed professional military education institutions to teach senior officers to "[a]nalyze how national military and joint theater strategies meet national strategic goals across the range of military operations."⁴⁷ Additionally, to bring rigor to theater campaign plan development, the Office of the Secretary of Defense released the *Theater Campaign Planning Planner's Handbook*, which is "designed to assist planners by presenting a broad approach to TCPs and country-level planning that considers

ongoing security cooperation efforts, current operations, the Phase 0 component of contingency plans, and resourcing constraints as part of the combatant commander's implementation of his strategic approach to the area of responsibility."⁴⁸ This handbook acknowledges limited combatant command resources in theater and emphasizes the point that the TCP "provides a framework to guide operational activity in order to achieve strategic objectives, while also providing a point of reference for the Services and other agencies to justify resource allocation."⁴⁹ Finally, it also discusses the "interagency nature" of planning and strategy implementation and the requirement to ensure that the combatant commander's strategic objectives are aligned with other U.S. Government efforts.⁵⁰

While acknowledging the complexity of developing and aligning the various strategy and operational planning efforts, we offer a logic model designed to translate grand strategy and associated strategic direction into theater strategy and associated plans including TCP.⁵¹

The model begins with national (grand) strategy, which defines U.S. security interests, objectives, and priorities, and provides guidance to all who are charged with its execution including geographic combatant commands. Given the National Security Strategy, DOD and the Joint Staff produce strategic guidance that focuses on the military instrument of national power and provides direction for the combatant commanders through several critical documents. For example, in addition

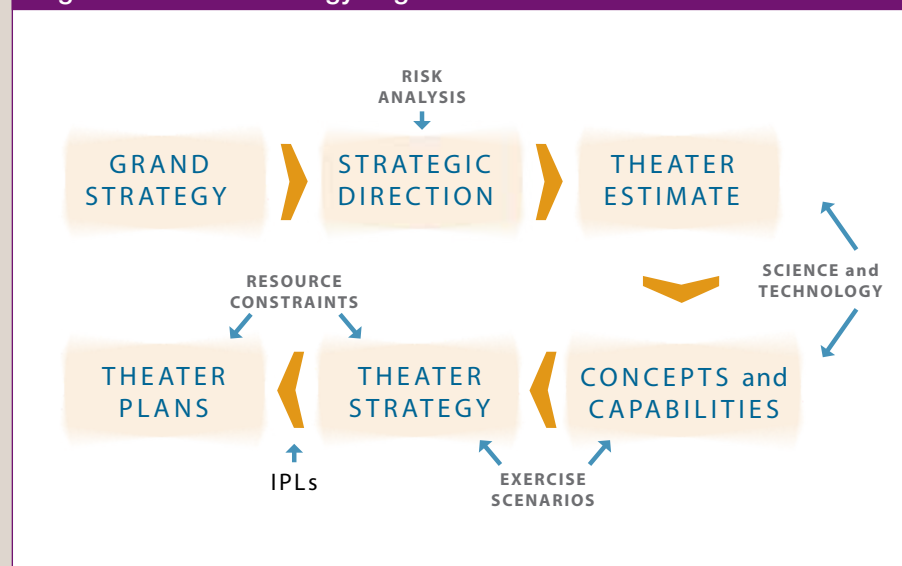
to the NMS, NDS, and QDR, the Unified Command Plan "sets forth basic guidance to all unified combatant commanders; establishes their missions, responsibilities, and force structure; and delineates the general geographical area of responsibility for geographic combatant commanders."⁵²

DOD also publishes Guidance for the Employment of the Force (GEF) that is the "method through which [the Office of the Secretary of Defense] translates" the strategic priorities set in these documents into a "single, overarching guidance document" that issues "implementable direction for operational activities."⁵³ Specifically, the GEF "provides two-year direction to the combatant commands for operational planning, force management, security cooperation, and posture planning. . . . The GEF is an essential document for combatant command planners as it provides the strategic end states for the deliberate planning of campaign plans and contingency plans. It also directs the level of planning detail as well as assumptions, which must be considered during the development of plans."⁵⁴

In addition to the GEF, the Chairman's Joint Strategic Capabilities Plan (JSCP) is the "primary vehicle through which the [Chairman] exercises responsibility for directing the preparation of joint plans." The JSCP implements the guidance contained in the GEF and "provides [focused] military strategic and operational guidance to [combatant commanders], Service Chiefs . . . and applicable DOD agencies for preparation of campaign plans and contingency plans based on current military capabilities."⁵⁵ The JSCP also provides guidance concerning global defense posture, security cooperation, and other steady-state (Phase 0) activities.

Armed with national strategy and strategic direction and the commander's guidance, the staff is prepared to begin formulating theater strategy. One of the most critical steps in developing strategy is to conduct a thorough theater estimate, which is "the process by which a theater commander assesses the broad strategic factors that influence the theater strategic environment, thus further determining the missions, objectives, and courses of action throughout their theaters."⁵⁶ The estimate includes a mission analysis that derives specified, implied, and essential tasks, as well as theater-strategic objectives (ends) and desired effects.⁵⁷ Given the complex nature of the security environ-

Figure 2. Theater Strategy Logic



ment, as well as changes in strategic direction, the theater estimate requires continuous refinement. In addition to a detailed analysis of the combatant command's mission, capabilities, and limitations, the estimate should address the following:

- Identify any states, groups, or organizations in the security environment that might challenge the combatant command's ability to advance and defend U.S. interests in the region. This analysis should include an appreciation for relevant geopolitical, geo-economic, and cultural considerations within the area of operations.

- Identify the major strategic and operational challenges facing the combatant command.

- Identify known or anticipated opportunities the combatant command could leverage including those states, groups, or organizations that could assist the command in advancing and defending U.S. interests in the region.

- Broadly assess the risks inherent in major uncertainties in the depiction of the security environment.

The theater estimate is crucial to set the context for the combatant command's mission analysis. Commanders articulate their intent through a vision that describes how the theater strategy supports U.S. goals and objectives. The vision should discuss the general methods to achieve those objectives including international assistance and diplomacy, as well as military means. Additionally, it may describe where the combatant commander is willing to accept risk. Finally, it should introduce and describe the appropriate strategic and operational concepts for the military instrument of power.

When crafting a vision, it should succinctly capture the desired strategic outcome. The vision is a snapshot of what the combatant commander wants the theater to look like in the future. Effective visions are usually short, focused, imaginable, positive, and motivating.⁵⁸ Constructing an effective vision statement is difficult: one or two sentences must reflect the consolidated theater strategy's goal so it is easily understood and engaging (for example, "[a]s we look forward, [U.S. Southern Command] seeks to evolve into an interagency oriented organization seeking to support security and stability in the Americas"⁵⁹).

A good vision must be compelling to a broad audience. For instance, if the combatant commander's vision is embraced by coalition partners, regional leaders, and Congress, there is a good chance that the strategy has a critical mass necessary for success. A coherent and credible vision serves as a communication tool that provides essential continuity and integrity to the everyday challenges and decisions within the combatant command's theater.

Once the theater estimate is complete, the strategist must develop strategic concepts that articulate the ways to achieve the theater strategy objectives or ends. First, the strategist must develop and consider strategic alternatives that can be expressed either as broad statements of what is to be accomplished or lines of operations.

As a useful reference in this process, the strategist can turn to the *Capstone Concept for Joint Operations: Joint Force 2020* (CCJO), which provides "potential operational concepts through which the Joint Force of 2020 will defend the nation against a wide range of security challenges. Its purpose is to guide force development toward Joint Force 2020, the force called for by the new defense strategic guidance, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*."⁶⁰ The CCJO describes the future operating environment by focusing on what is new and different, while suggesting "attributes" that will define the future force. The document also emphasizes the concept of globally integrated operations that require a "globally postured Joint Force to quickly combine capabilities with itself and mission partners across domains, echelons, geographic boundaries, and organizational affiliations."⁶¹

The strategic concept also forms the basis for subsequent planning efforts that include combat operations (i.e., concept of operations plans), security cooperation, and other support operations.⁶² Additionally, the concept identifies the means necessary for the command to attain its identified theater-strategic and national objectives. The means normally include interagency and multinational capabilities, as well as the full spectrum of U.S. military resources. In many cases, combatant commanders identify capability gaps that can be filled with resources that already exist within DOD but are not assigned to that theater or do not exist in sufficient quantity. In other cases, the command may identify capabilities—from

across the spectrum of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy, not just hardware—that need to be created, modified, or accelerated. Such capability requests are submitted through an IPL, and in either case, sound and clear strategic concepts are invaluable in articulating those capability needs to senior leaders.

Implementation

Once the theater strategy is complete and approved, the next step is implementation, or executing the strategy. Without the means, competencies, and informed thinking to carry out the commander's intent, the strategy is just an idea.⁶³ For example, deterrence is a key concept in all theaters, but Elaine Bunn noted that when the 2006 QDR directed that deterrence be tailored, "hard work [was] needed to flesh out the concepts and capabilities underlying tailored deterrence."⁶⁴ To implement tailored deterrence, combatant commanders must identify countries and groups the United States wants to deter, understand the motives of those actors, and request capabilities to prevent an adversary taking action the United States seeks to deter.

The theater strategy should also outline the structures, policies, technology, and people necessary to carry out the strategy. In today's complex security environment, theater strategy implementation requires the cooperation of multiple governmental and nongovernmental organizations, as well as international allies and partners. One of the most challenging tasks for the combatant command is ensuring that there is a credible commitment among all participants to accomplish the common goals.

With strategy playing an important guiding role in U.S. foreign policy, it is important to know how to evaluate the strategy. At a minimum, a strategy is designed to change the security environment by preventing the emergence of a peer competitor, increasing the number of democracies in the world, and preventing the spread of nuclear weapons. In a broader sense, as this article makes clear, strategy develops and employs all tools of national power to advance and defend national interests. Consequently, when evaluating strategy, one must examine the strategy's concept of national interests, view of the security environment, strategic priorities,

role of power, impact on resources, required means, risk, and acceptability.

In pure combat terms, it is relatively easy to measure whether the military disrupts, degrades, or destroys enemy forces. In permissive environments, the objectives are less clear and are broader than military objectives. Former Chairman of the Joint Chiefs of Staff Mike Mullen noted that the effects may never be clearly measurable and that cultural sensitivities might preclude measurement.⁶⁴ However, in a resource-constrained environment, it is important to understand which activities are more effective.

A theater strategy should contain measurements to calibrate its progress toward achieving goals and objectives. There are three broad categories of measures: input, output, and outcome. Resources (funds, personnel, and equipment) are typical examples of *input*. Interagency or coalition support might be another resource prerequisite. *Outputs* are performance measures that directly track progress toward goals and objectives. Outputs are dependent on adequate resources, such as securing an area or building infrastructure, and are accomplishments over which the combatant command has considerable direct control. These measures are usually quantifiable and have associated timeframes. In contrast, *outcomes* are often qualitative and are therefore more difficult to measure, and they are usually only influenced and not directly controlled by the combatant command. Examples may include the strength of regional security agreements or the relative receptivity to U.S. forces within the partner country. Outcomes are often referred to as strategic *effects*, the ultimate goals of the theater strategy and combatant commander's intent.⁶⁶ If the desired strategic outcome is political or economic stability, examples of outcome measures or effects might be representative participation in government or the reduction of political violence.

The practical value of performance measurement systems is that they enable the combatant command to evaluate the theater strategy's progress in achieving desired and clearly identified goals and objectives. Most theater strategies have a hierarchy of performance metrics starting with high-level outcome metrics that are supported by more detailed and granular performance (output)

metrics. The essential point is that performance measurement systems need to be consistent and aligned with strategic goals.

Conclusion: Evaluating Strategy

In practice, strategic decisions must always compete with the demands of domestic politics, or what Samuel Huntington has called "structural decisions."⁶⁷ These are choices "made in the currency of domestic politics." The most important structural decision concerns the "size and distribution of funds made available to the armed forces." The strategic planner can never ignore fiscal constraints. Indeed, political reality sometimes dictates that budgetary limits will constitute the primary influence on the development of strategy and force structure. Additionally, bureaucratic and organizational imperatives play a major role in force structure choices. Potential mismatches create risks. If the risks resulting from an ends-means mismatch cannot be managed, ends must be reevaluated and scaled back, means must be increased, or the strategy must be adjusted.

That said, when done correctly, theater strategy enables the combatant command to synchronize available resources and achieve theater objectives. **JFQ**

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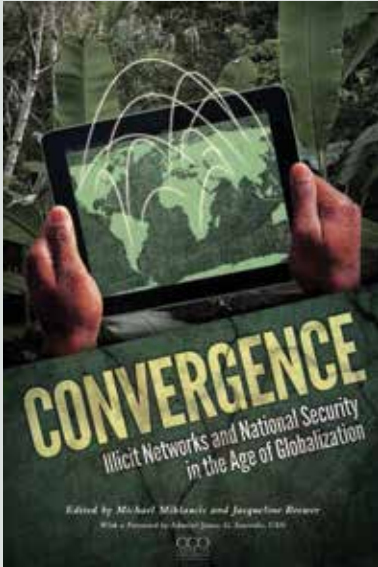
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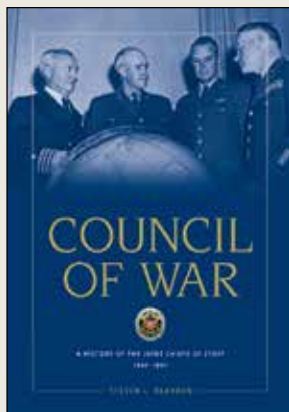
China Strategic Perspectives, No. 6

China's Forbearance Has Limits: Chinese Threat and Retaliation Signaling and Its Implications for a Sino-American Military Confrontation

By Paul H.B. Godwin and Alice L. Miller

Since its founding in 1949, the People's Republic of China (PRC) has employed military force in defense of its security and territorial integrity. In many such instances, Beijing implemented a calculus of threat and retaliation signals. Beijing implements this deterrence calculus by a carefully calibrated hierarchy of official protests, authoritative press comments, and leadership statements. If the crisis persists and Beijing perceives its interests are not satisfactorily taken into account, its statements escalate in level and may include at first implicit and thereafter increasingly explicit warnings that it may use military force to achieve its goals. This approach has been employed consistently despite the sweeping changes in the PRC's place in the international order, the proliferation of foreign policy instruments at its disposal, the more complex crisis decisionmaking process and domestic political environment, and the dramatic evolution in Chinese media over the decades.

This study explores the question of whether improving military capabilities will lead Beijing to substitute sudden or surprise attack for the politically calibrated deterrence signaling it has employed prior to its past use of force. It also assesses the problem in four ways. It first reviews China's use of force since 1949 to determine the motivations driving Beijing's employment of military coercion. Second, it assesses China's crisis decisionmaking process and crisis management. Third, it assesses the prospects for China's more aggressive use of military coercion in Asia's emerging security environment. Finally, Beijing's signaling of China's intent to employ military coercion is assessed in detail using a series of crisis case studies covering the years 1961–2004.



Council of War: A History of the Joint Chiefs of Staff, 1942-1991

Steven L. Rearden's *Council of War: A History of the Joint Chiefs of Staff, 1942-1991* surveys the role and contributions of the Joint Chiefs of Staff (JCS) from the early days of World War II through the end of the Cold War. The JCS, an organization of military advisors and planners established early in World War II, first advised the President on the strategic direction of U.S. Armed Forces in that war and continued afterward to play a significant role in the development of national policy. Because of their relations with the President, the Secretary of Defense, and the National Security Council, a history of their activities, both in war and in peacetime, provides insights into the military history of the United States. The importance of their activities led the JCS to direct that an official history of their actions be kept for future generations to study. Dr. Rearden's *Council of War* follows in the tradition of volumes previously published about JCS involvement in national policy, the Korean War, and the Vietnam War. Using a combination of primary and secondary sources, and adopting a broader view of previous volumes, this fresh work of scholarship examines the military implications of problems from 1942 to 1991. Although focused strongly on the JCS, Rearden's well-researched treatise deals too with the wider effect of crucial decisions and their ensuing policies.

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